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ABSTRACT

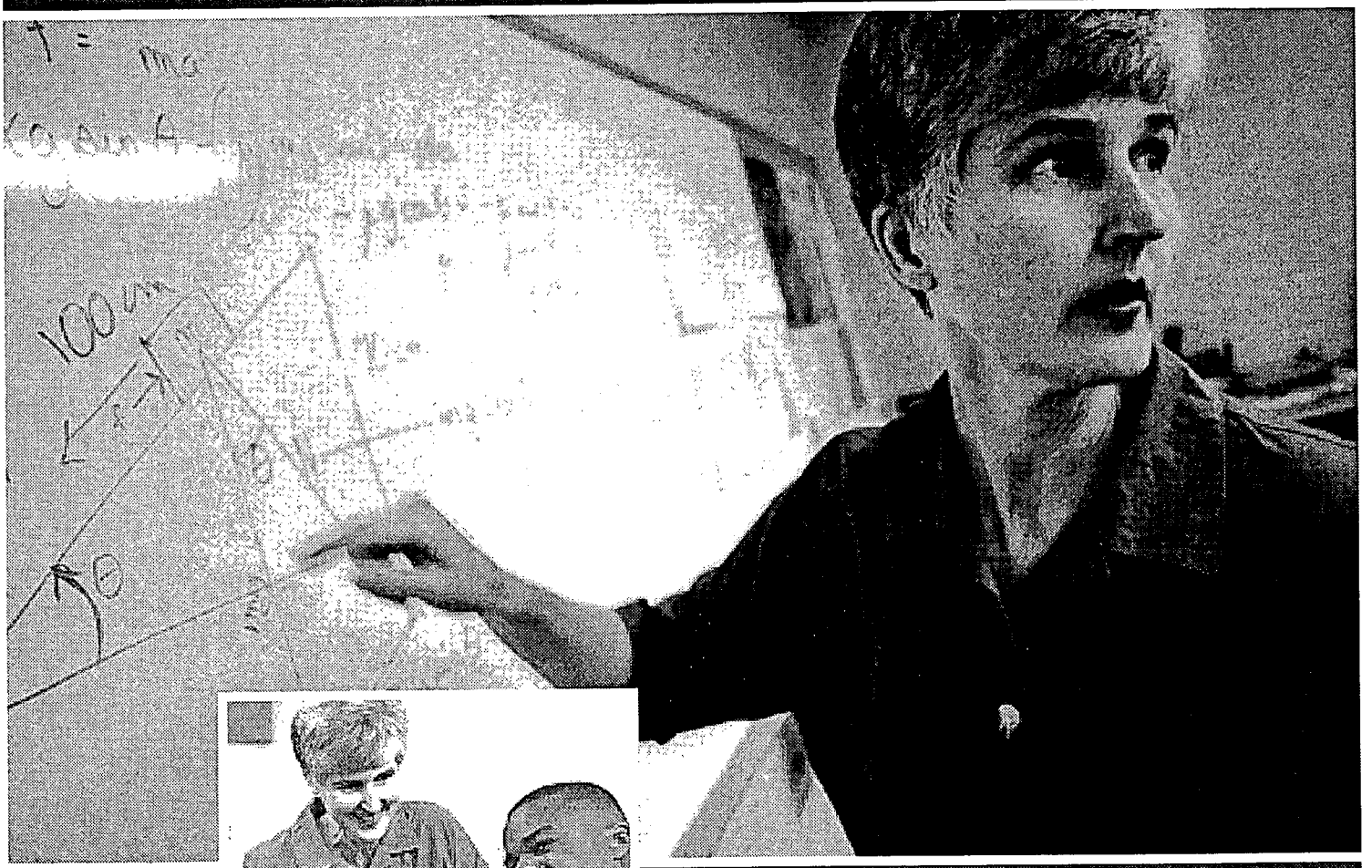
This paper describes the Milken Family Foundation's Teacher Advancement Program (TAP), which was designed to address many of the problems in today's education. TAP uses a systemic approach that builds on five key principles: providing teachers with multiple career paths and opportunities to advance in the profession without having to leave the classroom; providing market-driven compensation rather than lock-step salary structures; maintaining high teacher standards by means of performance based accountability; providing professional growth at the school site throughout the year; and expanding the supply of high quality teachers by providing alternative certification, by making the initial academic degree and teacher certification attainable in 4 years in all states, and by allowing outstanding retired teachers to continue working part time. The paper also includes answers to questions about TAP, and it offers charts and tables with data on: the five TAP principles; the benefits of TAP; TAP implementation; teacher salaries; staff distribution; student distribution; and teacher schedules. (Contains 112 bibliographic references.) (SM)

TEACHING AS THE OPPORTUNITY:

The Teacher Advancement Program

by Lowell Milken

TEACHING AS THE OPPORTUNITY:



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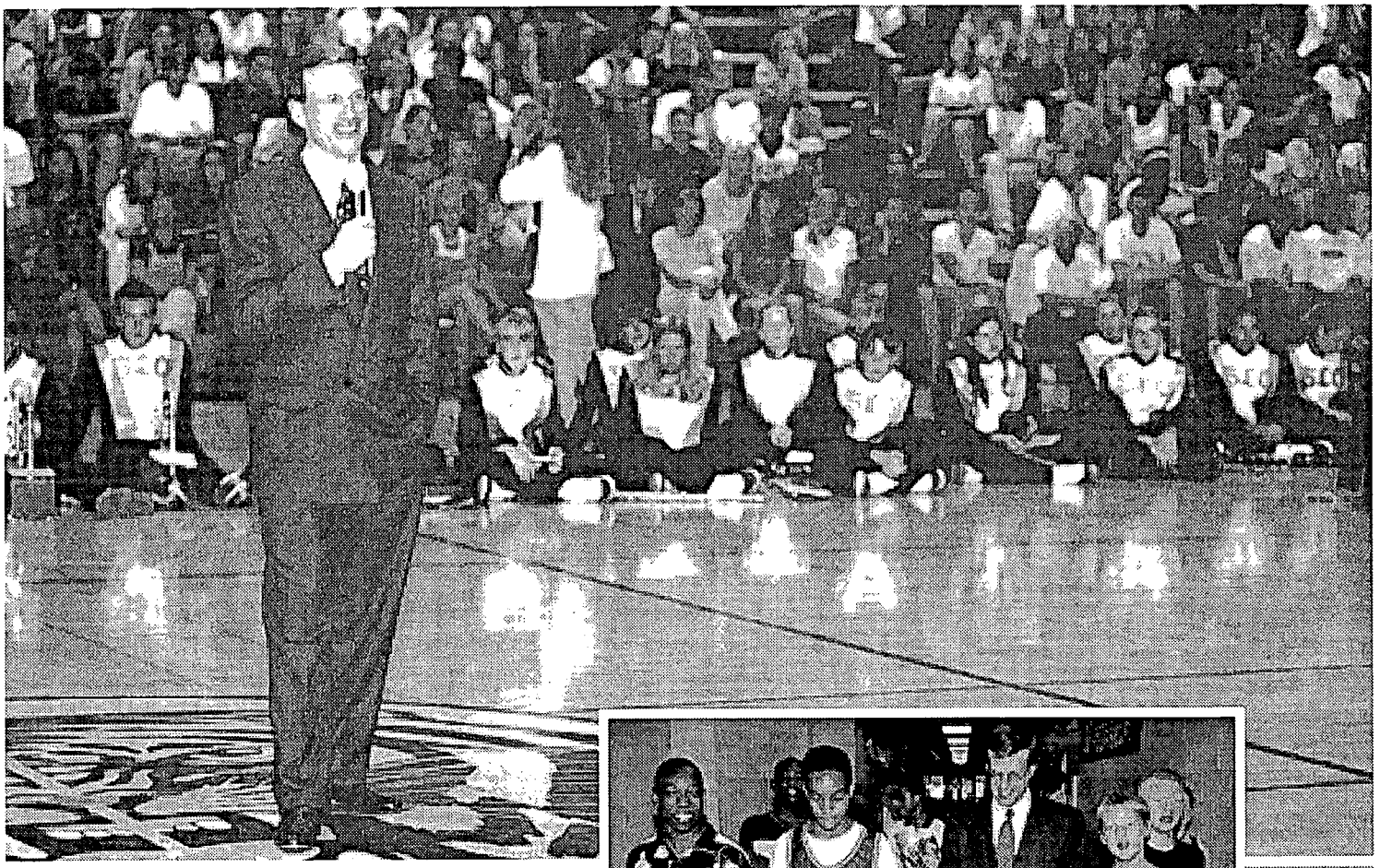


Preface

By Dr. John Theodore (Ted) Sanders

As we enter the new millennium, the world is beginning to accept the fact that teachers are not a given. They're not just the people who hand out the report cards and occasionally accept an apple. Everyone, from parents to political candidates, is talking about the importance of quality teachers. This attention will be a critical factor in the improvement of our nation's schools.

Yet the issue of advancing teacher quality is far from a new focus for Lowell Milken and the Milken Family Foundation, which he co-founded in 1982 and actively chairs today. Long ago, Lowell understood and appreciated the significance of teachers as leaders, recognizing that their leadership is something to be cultivated, not taken for granted.

We're talking about the leaders of our children, and Lowell understands that leadership needs support. In conceiving and developing the Milken Educator Awards program nearly 20 years ago, Lowell committed himself and the Foundation to that support. And by "support," I don't mean just words in studies or conferences. I mean action—real action, as demonstrated by the Milken Educator Awards program, which has expanded to 43 states and honored more than 1,650 outstanding teachers.

Any of us who know teachers—hard-working, underpaid, under-appreciated leaders—know how meaningful the Milken Educator Awards are to each and every one of them. And I know personally how important they are to Lowell.

As a friend and colleague of 15 years, I've observed Lowell to be a man of bedrock integrity, a passionate advocate, a devoted student, and a relentlessly driven intellect. The Milken Educator Awards, the Teacher Advancement Program, and the entire range of Foundation work reflect these qualities.

Fortunately for all of us, Lowell is driven by a vision of quality education for every child in every classroom. Had he been content with the traditional philanthropy following his remarkable career in business, we and the country would have benefited. But Lowell has given so much more than just his money. His time, energy and brilliance have not only shaped the Foundation, but changed lives. Our lives. For Lowell teaches as well as gives. He inspires as well as funds. And he works as well as lends his name.

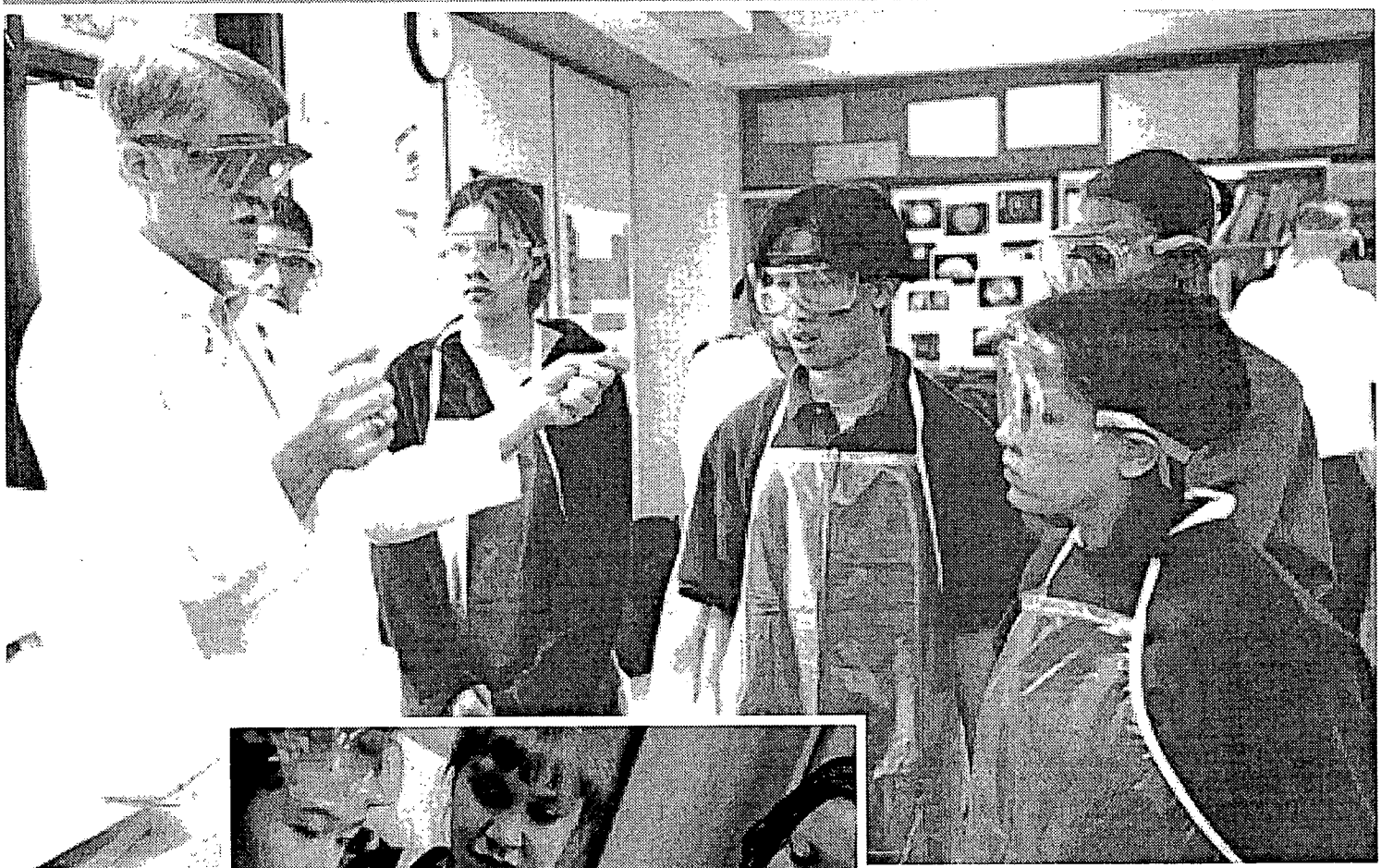
For nearly two decades, Lowell has helped shape our thinking about everything from high standards, assessment and accountability, to technology and its impact on the learning process, to early childhood care and education. His personal imprint on these and other critical issues can be seen in changing attitudes, both in the classroom and in legislation. Indeed, his work captures the joy of education, as his vision expands the possibilities.

Now, with the ongoing development of the Teacher Advancement Program, Lowell Milken and the Milken Family Foundation have delivered a comprehensive strategy to revitalize the teaching profession and deliver quality education to students. Once you have had the opportunity to review and consider the Teacher Advancement Program, I trust that you will join me in experiencing renewed optimism for the future of teaching and for the future of our children.

Dr. Ted Sanders, currently President of the Education Commission of the States, has led a richly varied career as a classroom teacher; chief school officer in three states—Nevada, Illinois and Ohio; Deputy Secretary and Acting Secretary of the United States Department of Education; and, since 1995, President of Southern Illinois University.

TEACHING AS THE OPPORTUNITY:

The Teacher Advancement Program



Executive Summary

Every young person in America has the right to the kind of education provided by quality educators. From the Foundation's work, analysis of research and experience over the years, we know that quality teaching is the basic building block of better schools and the essential ingredient of student success and achievement. In fact, the single most important education element is always the educator.

There is, for the first time in many years, a growing national consensus about the critical issue of the quality of teachers. With education now ranking as American voters' top concern, there is no shortage of proposed solutions for improving the quality of the American teaching corps. Yet none of these proposals has proven equal to the challenge of attracting, motivating and retaining high-caliber talent to the American teaching profession.

The problem resides in the structure of the American teaching profession. In its current form, this structure fails to attract and keep top talent in three critical ways. First, it does not offer teachers sustained opportunities for professional growth and career advancement. Second, it does not provide competitive compensation. Third, and partly as a consequence, it does not command the respect of the society it upholds—or the young people it serves.

The problem is particularly urgent because, in our fast-changing times, quality of teaching isn't just an education issue; it's also an economic issue. Human capital, which is propelled by the education, training and skills that give people command over knowledge, is the engine of today's economy. There is fierce competition for highly skilled workers in virtually every industry, and companies are offering ever-larger compensation packages to attract talent.

At a time when the entire economy is competing for a limited pool of high-quality human capital, how can the American education profession—which already faces an unprecedented teacher shortage—possibly attract, retain and motivate the high-caliber practitioners it needs?

The answer is, it can't—at least in its present form. Compensation is a major concern. Teachers' average starting salaries are lower than those of other college graduates, making it difficult to attract talented young undergraduates to the profession. This is evident in the fact that the

young people who *are* attracted to teaching, compared to students considering careers in other fields, are those who largely score near the bottom of high-stakes exams. This pattern is reinforced by the hiring practices of many districts, which tend to undervalue important indicators of teacher quality, such as subject matter knowledge, strong academic records and cognitive ability.

But it will do little good to recruit talented young people to the teaching profession if we can't *retain* and *motivate* them—that is, if we don't create an environment in which they can thrive. Under the current structure, one out of five new teachers will leave the profession within three years—and most likely to leave will be those with stronger academic backgrounds. Part of the reason, again, is low compensation: Those in other professions with similar education and experience levels earn on average 75 percent more than teachers. And the minimal pay raises that do occur are based almost exclusively on years of service or academic seat time, not on performance or additional responsibility. Indeed, because of few opportunities for career advancement for those teachers who want more salary and responsibility, the current K-12 system is a one-way career path out of the classroom and into administration.

To address these problems, the Foundation has formulated the Teacher Advancement Program (TAP), a systemic approach that builds upon five key principles:

First, establish multiple career paths. TAP provides all teachers with multiple career paths and opportunities to advance in the profession without having to leave the classroom. Teachers are able to progress along a continuum where increased responsibilities, qualifications, professional development and performance requirements are commensurate with compensation. Multiple career paths provide expanded roles for talented teachers—as leaders, decision-makers and mentors—as well as opportunities to work in the broader community.

Second, establish a system of market-driven compensation. TAP provides market-driven compensation, which replaces lock-step salary structures and provides flexibility to establish salaries. This system provides increased pay for those who do more work and are judged to be the most effective.

Third, establish a system of performance-based accountability. TAP maintains high teacher standards by means of performance-based accountability, which systematically measures teacher competence in content knowledge, instruction, assessment and student learning gains. Hiring, advancement and pay decisions are based on performance reviews conducted by the principal and peer experts from both inside and outside the school. While the ultimate goal is for teachers to sign three-year renewable contracts, the tenure process, at a minimum, will be longer and more rigorous.

Fourth, establish the means for ongoing, applied professional growth. TAP provides professional growth at the school site throughout the year in order to improve teacher skills in the classroom. Professional Growth Blocks provide frequent opportunities for teachers and administrators to learn, plan and grow collaboratively. A mandated induction year with salary and mentoring gives new teachers classroom responsibility with intensive support.

Fifth, expand the supply of high-quality teachers. TAP expands the supply of high-quality teachers in several ways: by making the initial academic degree and teaching certification attainable in four years in all states; by providing alternative certification to give beginning teachers, as well as mid-career professionals, the ability to enter teaching; and by allowing outstanding retired teachers to continue working part-time. Expanded teacher job mobility is achieved through multi-state credentialing, private pension plans that make benefits more portable, and the opportunity for *all* teachers to become nationally certified.

In 1999, the Foundation unveiled an elementary school model designed to show how these five TAP principles could be put into practice. Since then, much of that strategy has taken hold in diverse settings around the country—from Massachusetts and Florida to Arkansas. And in Arizona, five elementary schools became the first TAP demonstration sites in the nation.

The Foundation has since developed a model specifically geared to secondary schools. All educators in this multi-tiered model—the Associate Teachers, Senior Teachers, Mentor Teachers, Adjunct Teachers, Faculty Fellows and Master Teachers—are motivated by and rewarded with increased salary flexibility, new career paths, and daily ongoing professional growth opportunities.

Working over the past two decades in K-12 education—and, in particular, with the Milken Educator Awards program—gives us great hope about the possibilities for American education becoming more vibrant and responsive. Our task now is to establish a new education structure that assures excellent teachers are the norm, not the exception; a structure that will draw, nurture and reward more people of talent and commitment; and that will provide all children with the high-quality teachers they need and deserve.

TEACHING AS THE OPPORTUNITY:

The Teacher Advancement Program

Introduction

My purpose is to address the need to attract, retain and motivate the best talent to the American teaching profession. The high quality of teachers is critical because it is the quality of teachers that makes education the answer for all of us—as individuals, citizens and productive members of society.

The talent and commitment of high-caliber teachers determine not only the quality of teaching, but the whole of the education experience. This is why the needs of teachers and students mirror each other and why the concerns of teachers and children cannot and must not be separated.

But the importance of teacher quality to children's learning is one matter and the challenges of assuring it are another. Yet these issues must be considered together as well. They define a need that has for years commanded the Foundation's attention and resources. And indeed it should, for we, as a nation, are confronted with a crisis in teacher quality.

The crisis is this—the structure of American education does not attract enough people with the kind of talent and commitment that the profession needs. On the contrary, our system of education discourages them by failing to offer sustained opportunities for professional growth and career advancement; by failing to provide competitive compensation; and by failing to command the respect of the society it upholds or the young people it serves. If anything, American K-12 education in its current form reinforces the belief that teaching is an off-ramp from opportunity—a short path to a dead end.

More and more people profess concern for this problem. In fact, education ranks as the number one political issue among candidates running for office, as well as those voting them in or out. Considering the scale of the enterprise, it should. Any undertaking that costs 370 billion dollars a year,[1] that educates 53 million children,[2] that employs well over three million teachers,[3] and that over the next ten years will largely determine the future of more than 80 million youngsters ought to command our attention. The only surprising thing is that it has taken this long to do so.

But better late than not at all, there has emerged broad political support for reform and for the critical role of teachers. And there is no shortage of proposed solutions. It's just that none of them has proven equal to the challenge. None has had the scope, force and focus to attract high-caliber talent to the American teaching profession, and to motivate and retain it.

We have formulated a comprehensive strategy to help attain this goal. It's called the Teacher Advancement Program. In the year since we first presented it, much of that strategy has taken hold in diverse settings around the country. The need now is to build on the momentum the program has achieved, and to expand the Teacher Advancement Program model to include the entire K-12 experience. And aligned closely with that expansion is the need to seize public support for education reform and to focus attention on the most important element—the quality of teachers.

For it is my belief that unless we take bold and immediate action, we will lose a critical opportunity, perhaps our best chance, to provide all children with the high-quality teachers they need and deserve.

WHY TEACHER QUALITY IS SO IMPORTANT AND URGENT

Americans don't need to be convinced that talented teachers are the essential element of better schools. In polls, they consistently rank strengthening teacher quality among the most important issues facing education—higher than raising standards, increasing per-pupil spending, or even reducing class size.[4]

Academic research supports the public's view. The fact is: Teacher quality is the single most important education factor driving student performance.

- A landmark 1996 study in Tennessee found that students with initially comparable academic achievement levels demonstrated vastly different academic gains, depending on the quality of their teachers. Over a one-year period, the top 20 percent of teachers boosted the scores of low-achieving students by an average of 39 percentile points above the scores of those assigned to the bottom 20 percent of teachers. Moreover, students who performed equally well in math in second grade, showed a significant performance gap three years later, depending on whether they had been assigned to the most effective or least effective teachers. At the end of fifth grade, the differential was 54 percentile points.[5]
- A 1997 study in the Dallas Independent School District found similar results in both reading and math. The performance gap was 34 percentile points in reading and 49 percentile points in math.[6]*

* Fourth-graders with reading scores in the 60th percentile, who spent three consecutive years with effective teachers, increased their reading scores to the 76th percentile by the end of sixth grade, while the reading scores of students with ineffective teachers during the same three years dropped to the 42nd percentile. Similarly, third-grade students who had effective teachers for three years in a row boosted their math scores from the 55th percentile to the 76th percentile by the end of the fifth grade. A comparable group of third-graders taught by ineffective teachers saw their math scores fall 30 percentile points over the same three-year period.

- And recent findings by William Sanders also show that the variation in effectiveness among teachers increases as students move to higher grades.[7] This means that depending on the quality of teachers, we should expect even greater differences in student achievement at the secondary school level.
- Other studies have demonstrated that high-quality teachers can narrow the performance gap between low income and minority students and their higher income counterparts.[8]
- And another major study of 900 school districts nationwide showed that every additional education dollar spent to support quality teaching netted greater improvement in student achievement than any other resource.[9]

The message from this research is clear—having good teachers really does matter. But while studies confirm their impact, there has been little credible research linking specific characteristics and behaviors of teachers to student learning. To understand this correlation, the Foundation commissioned a study by Harold Wenglinsky, a research scientist at the Educational Testing Service. He analyzed the 1996 National Assessment of Education Progress mathematics and science tests for more than 7,000 eighth graders and correlated students' scores with three characteristics of teacher quality: teacher attributes, teacher classroom practices and teacher professional development.

The only teacher attribute linked to higher student test scores in math and science is whether teachers had majored or minored in the subject they teach. According to Wenglinsky, students whose teachers majored or minored in the subject they are teaching out-perform their peers by 39 percent of a grade level in both math and science. There is no connection between years of teaching experience or obtaining a master's degree. This is alarming given that more than half of the secondary school physical science teachers and nearly one-third of high school math teachers neither majored nor minored in their subjects.

Three teacher classroom practices were found to be most effective. The study found that students out-perform their peers by about 70 percent of a grade level in math and 40 percent of a grade level in science when teachers engage them regularly in hands-on learning activities. As well, students whose teachers emphasized higher-order thinking skills out-performed their peers by about 40 percent of a grade level in math. Finally, students whose teachers frequently assessed their progress by means of tests, out-performed by 46 percent of a grade level in math and 92 percent of a grade level in science those students whose teachers relied on such ongoing forms of assessment as portfolios. Yes, tests matter.

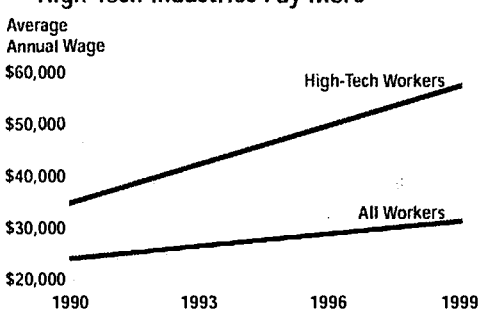
The right kind of classroom-focused professional development also improves math and science achievement. Teachers who learn how to work with different student populations have students who out-perform their peers by almost a full grade level in math. Students whose teachers were trained in higher-order thinking skills achieve almost 40 percent of a grade-level improvement over math students whose teachers were not similarly trained. And finally, training science teachers in laboratory skills yields almost 40 percent of a grade-level improvement in student science achievement.[10]

These findings confirm my own school experiences and those of my four sons; namely, that subject matter knowledge and good pedagogy, when combined with such attributes as vitality, intellectual curiosity, commitment and generosity of spirit, make the difference between the effective and ineffective teacher. This is also what I've observed in visits to hundreds of classrooms across the country over the past two decades. And these are the very qualities that characterize the recipients of the Milken Family Foundation National Educator Awards.*

While there are, indeed, many outstanding teachers in our country, there are not remotely enough to meet the complex needs of our fast-changing times. That's why teacher quality is no longer just an *education* issue, it's an *economic* issue.

The dramatic impact of information and communications technology has transformed the world economy. To be competitive, virtually every industry now relies on the education, training and skills that give people command over knowledge. This *human capital*, as it is called, is the engine of the new economy. And we can see its impact across the board. High-tech industries made up eight percent of gross domestic product in 1999—but accounted for one-third of gross domestic product growth,[11] and for paying almost double the national average annual wage.[12] (See Chart 1) Professional and skilled jobs now represent 65 percent of all jobs, as opposed to 20 percent 50 years ago.[13] Economists estimate that human capital now comprises 75 percent of our nation's wealth:[14] And of the 100 largest companies in the U.S., 70 percent derive their growth primarily from human capital assets compared to roughly 30 percent 25 years ago.[15]

CHART 1



Financial markets, too, reflect its importance with the market valuations of human capital-driven companies rising to levels unparalleled in history. This effect can be seen vividly

* The National Educator Awards program provides public recognition and financial awards to outstanding K-12 teachers, principals and other education professionals who are furthering excellence in education. The program also fosters communication among Milken Educators, thereby enhancing their efforts to strengthen education leadership and improvement. Since it was established in 1985, the program has recognized more than 1,650 distinguished educators in 43 states with individual unrestricted awards of $25,000.

CHART 2

Average Value of One Employee

Based on equity market value

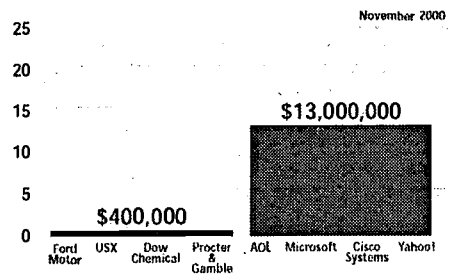
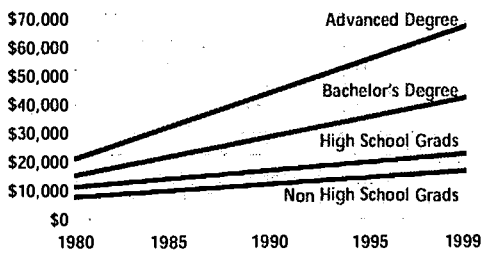


CHART 3

Education Earnings Premium



when you consider the value of each employee. For example, look at a comparison of the equity market value per employee between the selected so-called "old" economy companies and the "new" economy companies, as set forth in Chart 2. The "old" economy group averages $400,000 per employee versus $13,000,000 for the "new" economy group.[16] And with education the fuel of our extraordinary new economy, the earnings premium attached to a high level of education is greater than ever before.[17] (See Chart 3)

These factors are creating an enormous demand for and shortage of highly skilled workers in virtually every industry. Eighty-eight percent of manufacturers, for example, report a shortage of qualified employees in at least one job category.[18] Two-thirds of CEOs cite a lack of capable workers as a barrier to growth,[19] and in recent years, surveys indicate that nearly half of the millions of high-tech-related jobs go unfilled.[20] Because of this fierce competition for human capital, companies are offering ever-larger compensation packages to attract talent, and an increasing number of the most respected American companies—including top U.S. investment banks, accounting, law and consulting firms—are reporting a significant outflow of talent.[21]

At a time when the entire economy is drawing hard on a limited pool of high-quality human capital, how can the American education profession, which will require more than two million new teachers within a decade, possibly attract and retain the high-caliber teachers it needs?* The answer is, it can't—at least in its present form. This can be seen in the attitudes of young people.

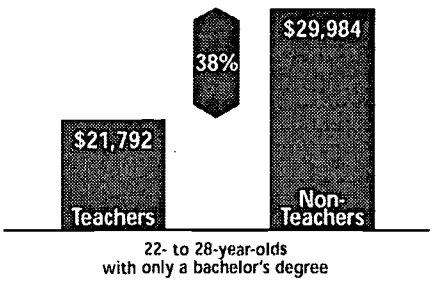
In a 1999 national public opinion poll conducted for the Foundation to assess career attitudes of high school students, barely one in ten expressed a strong interest in teaching.[22] We also found a similar attitude among young people already enrolled in college. In a recent series of focus group discussions across the country, we heard that the outlook and career goals of these young people do not align with an interest in teaching. They profess admiration for the teaching profession, but the drawbacks simply eclipse the attractions.[23]

* The number of new teachers needed over the next ten years (due to increased numbers of students, class size reduction, and teacher departure) is estimated at 2,456,000.

Compensation, of course, is a major concern. Teachers' average starting salaries are lower than college graduates' in any other profession.[24]* Teachers in their twenties with a bachelor's degree, for example, will earn 38 percent less than their counterparts in these other professions.[25] (See Chart 4)

CHART 4

Teachers Earn Less

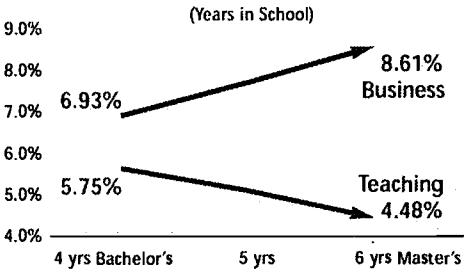


22- to 28-year-olds
with only a bachelor's degree

Because of low salaries, teachers also don't realize gains in their training investments. The Foundation has found that a full-time teacher realizes a lower rate of return the longer he or she trains. Salary increases that result from more education simply do not make up for the costs of training—namely, tuition, books and the income lost while in school. This is not the case in other professions such as business, where our society values post-graduate education.[26] (See Chart 5)

CHART 5

Rates of Return for Years of Education



These economic realities make it very difficult for the profession to attract talented undergraduates. For example, prospective teachers, compared to students considering careers in other fields, largely score near the bottom of high-stakes exams.[27†] Studies also show that those with stronger academic backgrounds are less likely to enroll in teacher-training programs, less likely to become teachers upon completion of these programs, and more likely to leave the profession than are those with weaker academic records.[28]

Equally troubling is the fact that public school officials tend to undervalue important indicators such as subject matter knowledge, strong academic records and cognitive ability. Economist Dale Ballou looked at the hiring experiences of over 15,000 teacher education graduates over a 15-year period and found that districts tend not to hire those candidates who are graduates of the most selective colleges. He also found that even in the hiring of math or science teachers, academic degrees in those subjects were irrelevant, and degrees in education were actually preferred.[29]

* In 1998, the average beginning teacher salary was $25,735. Expected beginning salaries for college graduates in other fields were significantly higher: liberal arts, $33,600; accounting, $33,702; business administration, $34,831; economics and finance,$36,658; and math or statistics, $40,523.

† According to Graduate Record Examination data, the overall mean score of prospective education majors is 1373, versus 1535 for social science majors, 1554 for life/natural science majors, 1609 for humanities and arts majors, 1735 for engineering students, and 1740 for physical sciences graduate students.

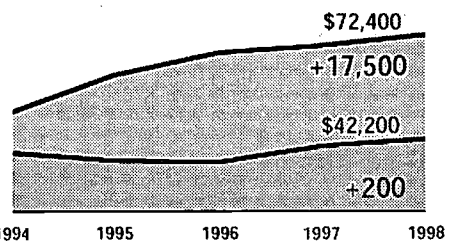
But even if we can change these practices, it will do little good to recruit talented young people to the teaching profession if we can't retain and motivate them; that is, if we don't create an environment in which they can thrive.

Our failure to do so can be seen in the turnover of new teachers. One out of five new teachers leaves the profession within three years; and in urban communities, the exit rate is an astonishing 50 percent within five years. Moreover, new teachers who do not participate in induction programs are twice as likely to leave the profession, and the same is true of those who had scored well on high-stakes exams.[30]

CHART 6

Education Earnings Premium

(Years in School)



Yes, behind these trends are many of the same factors keeping talented undergraduates away. Consider money. The salary gap we just noted for teachers in their twenties grows to more than 75 percent for those in their late forties with a master's degree.[31] In fact, teachers with a master's degree saw their wages increase in recent years by only $200 in real terms, while educated professionals in other fields had increases over $17,000. (See Chart 6) And even when teachers score at the highest quantitative literacy levels, they earn 53 percent less than other college graduates who score at the same level.[32]*

Or consider career opportunities. Pay raises are based almost exclusively on years of service or academic seat time, not on performance or additional responsibility. And when teachers are asked to take on more work, it is generally without an opportunity for more pay. Indeed, for those teachers who want more salary and responsibility, the current K-12 system is a one-way career path out of the classroom and into the administrative ranks. Yes, teaching is a flat career.

The sobering reality is that the American K-12 education system, by its very structure, alienates many of its best practitioners. By failing to adapt to the enormous structural changes in the society around it, the education system perpetuates a 19th-century model, one that envisioned teachers as replaceable workers on an assembly line and paid them blue-collar salaries, wrongly assuming that all teachers did the same job equally well.

Society pays a steep price for this. American businesses spend billions of dollars on remedial training for their employees. According to a recent nationwide survey, more than a third of all companies with 100-plus employees provided remedial math instruction, and 28 percent provided remedial reading and writing.[33]

* The median weekly salary of a teacher at the highest level of quantitative literacy is $618, while that of same-scoring college graduates in other professional fields is $947, a weekly pay differential of $329.

We also pay in high teacher turnover costs. A recent Foundation analysis weighed a number of factors such as college education subsidies by government and the income lost while a teacher earns a credential. The analysis found that a credentialed teacher who drops out of the profession after the first year costs society about $17,000. Part of that cost is recovered every additional year a teacher remains in the classroom. But given anticipated teacher dropout rates, teachers who are hired in the next decade and who don't stay in the profession for at least ten years will cost society approximately $4 billion.[34]

Most shamefully of all, the cost is borne by students who, year after year, are denied effective teachers. Part of this cost can be quantified, such as when students are held back or drop out and never realize their full earnings potential, or when they disappear into the dark recesses of society, caught in a cycle of crime. But other costs can't be quantified, such as when students are not encouraged to perform to their fullest abilities, to develop that love of learning—or worse, when students lose confidence and give up hope, when they stop imagining a better life for themselves and those around them. These are the real costs of an education system that cannot attract, retain or motivate the many high-caliber teachers it needs. And this is why finding a structural solution is urgent.

THE TEACHER ADVANCEMENT PROGRAM

A One-Year Report Card

The Teacher Advancement Program (TAP) provides this solution. It is a comprehensive strategy with five key principles. (See Chart 7)

CHART 7

Teacher Advancement Program

- **Multiple Career Paths**
- **Market-Driven Compensation**
- **Performance-Based Accountability**
- **Ongoing, Applied Professional Growth**
- **Expanding the Supply of High-Quality Teachers**

First, TAP provides all teachers with multiple career paths and opportunities to advance in the profession without having to leave the classroom. Teachers are able to progress along a continuum, knowing that as compensation increases so do responsibilities, qualifications, professional development and performance requirements. *Multiple career paths* provide expanded roles for talented teachers as leaders, decision-makers and mentors, and give them opportunities to work in the broader community.

Second, TAP provides *market-driven compensation*, replacing lock-step salary structures and providing flexibility to establish salaries. This system provides increased pay for those who do more work, take on greater responsibility, and are judged to be the most effective.

Third, TAP maintains high teacher standards by means of *performance-based accountability*, which systematically measures teacher competence in content knowledge, instruction and assessment, as well as student learning gains. Hiring, advancement and pay decisions are based on performance reviews conducted by the principal and peer experts from both inside and outside the school. While the ultimate goal is for teachers to sign three-year renewable contracts, the tenure process, at a minimum, will be longer and more rigorous.

Fourth, TAP provides *ongoing, applied professional growth* at the school site throughout the year in order to improve teacher skills in the classroom. Professional Growth Blocks provide frequent collaboration opportunities for teachers and administrators to learn, plan and grow. A mandated induction year with salary and mentoring gives new teachers classroom responsibility with intensive support.

Fifth, TAP *expands the supply of high-quality teachers* by making the initial academic degree and teaching certification attainable in four years in all states; by providing alternative certification so that beginning teachers, as well as mid-career professionals, can enter teaching; and by allowing outstanding retired teachers to continue working part-time. Expanded teacher job mobility is achieved through multi-state credentialing, transferable pension benefits, and the opportunity for all teachers to become nationally certified.

In 1999, we unveiled an elementary school model designed to show how these five TAP principles could be put into practice. The reaction has been overwhelming. The Education Leaders Council, for example, an organization of eight state superintendents and commissioners representing 30 percent of the nation's K-12 students has formed a partnership with the Foundation to pilot the Teacher Advancement Program.[35] The Arkansas Board of Education, with the support of State Director of Education Ray Simon, approved its first charter schools; and in September 2000, the Grace Hill Elementary School began operations based on the TAP model.[36] In Florida, Education Commissioner Tom Gallagher and Governor Jeb Bush secured funding grants for 20 schools to develop Mentor Teacher proposals based on TAP.[37] South Carolina, under the direction of State Superintendent of Education Inez Tenenbaum, is working to open eight TAP schools in the coming year.

Most dramatic have been developments in Arizona. Thanks to support from State Superintendent Lisa Graham Keegan and Governor Jane Hull—as well as the efforts of Foundation representatives, teachers, administrators, school board members and union officials—five Arizona public schools became the first Teacher Advancement Program demonstration sites in the nation. These elementary schools, selected through a rigorous application and screening process, have a variety of student populations. They are ethnically diverse and range in socio-economic

status from low to middle income. While each school poses distinct challenges, each has made a commitment to improving teacher quality, and ultimately student performance, through the Teacher Advancement Program.

Our strategic plan for TAP demonstration schools includes a rigorous program evaluation. While the ultimate goal is to improve student learning, we recognize that such goals are rarely achieved in the first year of a reform. Thus, to measure its immediate impact at the school site, we have developed other markers such as the level of teacher participation, improvements in the qualifications of teacher applicants, improved teacher retention rates, and satisfaction among teachers, parents and students.

Looking beyond implementation, we are pursuing research into the broader issues surrounding teacher quality. I have already mentioned the studies on teacher characteristics and behaviors. In addition, our research agenda ranges from a joint study with the National Association of Secondary School Principals on the principal's role in improving teacher quality to a research study of other nations' efforts to attract, retain and motivate high-quality educators. But to sustain better student performance and foster habits of lifelong learning, all young people need to experience quality teaching in classroom after classroom, year after year, from pre-school to high school graduation.

A SECONDARY SCHOOL MODEL

To reach this goal, we must extend TAP to secondary schools. To see how this might work, let's consider a typical high school. We will call it New Mill High, a 2000-student, four-year secondary school with a traditional six-period, 60-minute class schedule. Average class size is 30, and there are 80 full-time teachers. Led by one principal and two assistant principals, New Mill is considered well-staffed with a full range of positions, from counselors to specialists, serving students with special needs.

While parents' expectations for their children's education are high, the faculty's morale is not. New teachers are often forced to develop their skills alone, and veterans are discouraged by lack of support and poor prospects for promotion. The school day offers little opportunity for interaction with colleagues or students. Most teachers use their one "preparation" period to keep up administratively or just to take a breather.

CHART 8

New Mill High School
Science Department

Teachers	Years Teaching	Highest Degree/ Units beyond B.A.	Salary
1	1	B.A.	$26,000
2	1	B.A. / 50	$29,200
3	3	M.A. / 75	$34,200
4	4	M.A. / 60	$35,500
5	6	M.A. / 80	$42,200
6	15	M.A. / 80	$51,700
7	18	M.A. / 60	$45,700
8	30	M.A. / 80	$59,200
9	32	B.A. / 50	$51,600
10	36	B.A. / 80	$59,900
		Total Science Dept. Salary Budget	$435,200
		Average Teacher Salary	$43,520

Salary is based on academic degrees and units earned after college with automatic increases for seniority. Since performance is not a factor, tenure is virtually automatic, making lifetime job security seem a hollow achievement. While a number of reforms have been introduced at New Mill over the past decade, none has created any fundamental improvement in teachers' skills or students' performance. Measures such as test scores, college admissions, graduation rates and attendance have all remained flat.

New Mill's Science Department has ten full-time teachers who, on average, have 150 students and five class periods daily. Based on national averages, the current personnel budget for the department's ten professionals is $435,200. (See Chart 8)

As a result of the basic frustrations of the job, combined with the demand from business for technically trained professionals and the attraction of large, private sector salaries, the department has to hire about two to four new science teachers every year. At the end of five years, only one in four is still at the school.

CHART 9

Michelle Kim Biology Teacher

- 3 years teaching experience
- Master's in biology
- Committed & talented
- Concerns:
  - — Limited earning potential
  - — Colleagues' attitudes

One of New Mill's biology teachers is Michelle Kim. Michelle, a third-year teacher with a master's degree in biology from a top private university, earns $34,200 a year. She is a committed and talented professional who arrives early and stays late to prepare labs, to meet with students, and to create learning experiences that link science to students' lives, industry and the community. While she loves teaching, she feels discouraged. Many of her college classmates are already earning $70,000, a salary she may never see. Worse, some of her colleagues actually seem to resent her hard work, innovation and effectiveness. Lately, she has begun to wonder if she really belongs in the profession. (See Chart 9)

Next-door is first-year teacher Russell Sherman. He teaches physical science, holds a B.A. in education, earns $26,000 a year, and is cross-country coach, an assignment he was told, "went with the job." Russell has discovered the irrelevance of much of his pre-service education coursework and does not feel well-prepared for the realities of the classroom. He receives no practical support from senior teachers, his department chair or administrators. He's left to sink or swim.

CHART 10

Nick Hanson Physics Teacher

- 15 years teaching experience
- Master's in physics
- Rigorous & innovative classes
- Popular conference presenter
- Greatly expanded student interest in physics

Nick Hanson, a 15-year teaching veteran with a master's degree in physics, also teaches five classes. In his youth, Nick had been an Olympic hopeful. Now he puts the same energy and commitment into teaching he once put into the pole vault. His classes are rigorous and include fascinating field trips financed by grants he has secured. His innovative use of technology for collecting data, for making presentations, and for engaging his students makes him a sought-after conference presenter. He has made physics far more accessible to all students. In the past six years, the number of students taking the AP Physics exam has tripled, and the number of girls taking physics has increased by 60 percent. Yet for all Nick's creativity, hard work and success, no member of the science department has ever observed him teach. (See Chart 10)

This year, Nick will earn $51,700, close to the top end of the salary schedule. Although he loves teaching, his children's college tuition looms, so Nick is contemplating a job offer from a high-tech company that would pay him as much as $75,000.

Finally, there is Joe Barrett. He teaches five chemistry classes daily, has a B.A. in chemistry, a master's degree in education, and earns $42,200. After six years of teaching, Joe was chosen to serve as department chair, a job that is largely administrative. Joe watches third-year teacher Michelle Kim and remembers when he, too, was once eager and dedicated. But now, he is discouraged by what he considers an uncaring and often incompetent system and frustrated by the lack of recognition for his talent and for his hard work in the early years. So Joe already finds himself coasting. (See Chart 11)

CHART 11

Joe Barrett Chemistry Teacher

- **B.A. in chemistry/M.A. in education**
- **6 years teaching experience**
- **Department chair**

CHART 12

Dr. Harold Smith Principal

- **Understands teachers' frustrations**
- **Few resources to reward or support staff**
- **Losing good teachers**
- **Lowered faculty morale**
- **Minimal student learning gains**

The principal, Dr. Harold Smith, understands his teachers' needs and frustrations. He works hard to boost teacher morale, but with limited time and few resources to reward excellence or redress weaknesses, each year he sees promising and high-caliber teachers leave, less engagement among those who stay, and minimal student-learning gains. (See Chart 12) In June 2000, Principal Smith attended a national education conference on teacher quality. There he learned about the Teacher Advancement Program. Eager to try new approaches, Dr. Smith gained approval from the district and a commitment from the faculty to meet the TAP requirements. He and his staff began to phase in the Teacher Advancement Program at New Mill High School for the 2001-2002 school year.

Fast-forwarding, let's take a look at New Mill's science department in the fall of 2005. Under the new model, instead of ten classroom science teachers, there are six levels of teaching staff consisting of three Associate Teachers—one of them in her induction year, four Senior Teachers, two Mentor Teachers and one Master Teacher. Two Adjunct Teachers and a retired teacher, rehired as a Faculty Fellow, supplement the full-time staff. Each position is defined by specific professional

CHART 13

New Mill High School
Science Department

Old Model	# of Teachers		Salary Budget
Teachers	10		$435,200
Teacher Advancement Program	**Full-Time Positions**	**Salary Range**	**Salary Budget**
Associate Teachers	3	$30,000—$35,000	$100,000
Senior Teachers	4	$33,000—$50,000	$145,500
Mentor Teachers	2	$45,000—$70,000	$104,000
Master Teachers	1	$60,000—$100,000	$82,000
	Part-Time Positions	**Per Course Range**	
Adjunct Teachers	2	$4,356—$5,082	$8,700
Faculty Fellow	1	$4,792—$7,260	$14,500
		Total:	$454,700
		Percent Difference:	4%

CHART 14

Mentor Teacher: Michelle Kim

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
7:00					
7:30	Period 1 Mentor Activity	Period 1 Mentor Activity	Professional Growth Block (Mentor leads)	Period 2 Teaching	Period 1 Mentor Activity
8:00					
8:30	Period 2 Teaching	Period 2 Teaching	Period 1 Class Planning	Student Advisement	Period 2 Teaching
9:00					
9:30	Period 3 Teaching	Period 3 Teaching	Student Advisement	Snack	Period 3 Teaching
10:00				Period 4 Teaching	
10:30	Snack	Snack	Snack		Snack
11:00	Period 4 Teaching	Period 4 Teaching	Period 3 Teaching		Period 4 Teaching
11:30				Lunch	
12:00	Lunch	Lunch			Lunch
12:30	Period 5 Teaching	Period 5 Teaching	Lunch	Period 6 Mentor Activity	Period 5 Teaching
1:00					
1:30	Period 6 Class Planning	Period 6 Class Planning	Period 5 Teaching		Period 6 Mentor Activity
2:00					
2:30					
3:00					

qualifications and certification, work periods, job responsibilities, professional development requirements, and evaluation procedures. As you can see, there is a substantial range of salaries among career path levels, as well as within each level. (See Chart 13)

The professional salary budget for the department is now $454,700, an increase of approximately four percent. Dr. Smith could afford the increase in salary ranges because TAP provided budget flexibility. For instance, when two of his teachers retired and were replaced by younger teachers, the new state TAP program mandated that these "turnover" salary savings remain within his school budget. The state also funded the ongoing four percent increase.

Under the new system, Michelle Kim has been promoted to Mentor Teacher. She now spends 60 percent of her weekly schedule teaching four classes, 12 percent on class planning, and five percent on student advising. The remaining 23 percent is spent planning and implementing Professional Growth Blocks, observing and meeting with teachers, and conducting demonstration lessons. (See Chart 14) Based on her responsibilities, her 10-month work year, her performance, and the appraisal by her Master Teacher and the principal, Michelle now earns $52,000. Just as important as this increase, Michelle is now assured a career path that allows her to remain in the classroom while progressing to a higher level of authority, responsibility and salary. A career teaching high school students no longer seems limiting. (See Chart 15)

CHART 15

Michelle Kim Mentor Teacher

- 10-month schedule
- Old salary $34,200
- TAP salary $52,000
- Career path with increased
  - — Authority
  - — Responsibility
  - — Pay

Nick Hanson is now a Master Teacher at New Mill with instructional leadership responsibility for the Science Department as well as the Health/P.E. Department. Like Michelle Kim, Nick qualified for his promotion by submitting a portfolio and by performing a series of classroom demonstrations, all judged by the principal, the other New Mill Master Teachers and outside evaluators. These evaluations established Nick's expertise in curriculum, staff development and assessment; and his studies and conference presentations were proof of his contribution to the profession. (See Chart 16) As a Master Teacher, Nick shares his resourcefulness and skills with all science and health/P.E. teachers. He teaches two

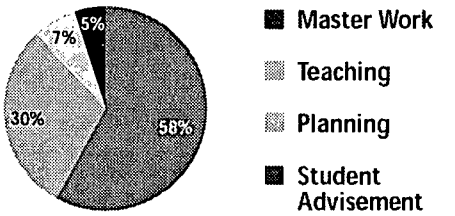
CHART 16

Nick Hanson Master Teacher

- Leads Science & Health/PE departments
- Qualified by:
  - — Outstanding portfolio
  - — Classroom demonstrations
  - — Contribution to profession

CHART 17

Nick Hanson Master Teacher



courses and spends almost 60 percent of his time observing classes and mentoring, coaching and training teachers, as well as working with the principal and other Master Teachers on curriculum development, assessment, peer assistance and teacher evaluation. (See Chart 17) Nick has signed a renewable three-year contract with New Mill that pays him $82,000 for 90 percent of his time 11 months a year and allows him to pursue outside paying jobs. He currently has a contract to develop a science skills program for an electronics firm. He also does consulting work for various school districts evaluating prospective Master Teachers. This year, Nick's combined income will be $104,000. (See Chart 18)

To provide time for ongoing professional development, New Mill has adopted a modified block schedule with six one-hour periods, three days a week, and three 90-minute periods, two days a week. By varying start and end times and having a late start for students once a week, the schedule now accommodates a weekly 90-minute Professional Growth Block. In addition, Mentor and Master Teachers have regular time blocks to work together to consult with the principal and to conduct daily classroom observations and performance evaluations.

CHART 18

Nick Hanson: Master Teacher
2005 Income

New Mill contract	$82,000
Contract with private firm	$16,000
Consulting fees with school districts	$6,000
Total	$104,000

Nick and Michelle work intensively with their teacher teams to establish and reinforce high standards. Gone are the days of workshops and one-day training sessions; professional development is now a continuous process. The new approach resembles the interaction among medical personnel making rounds in a teaching hospital. The Master, Mentor, Senior and Associate Teachers discuss individual student learning cases, focus on learning problems, determine instructional remedies, and learn a great deal themselves.

These changes have created a new structure and culture at the school that includes: clear standards of professional excellence; weekly Professional Growth Blocks that promote sharing and the solving of classroom problems; mentoring from respected Master and Mentor Teachers at the school site that produces measurable improvement in skills; and compensation and promotion, based on an objective and transparent performance-based appraisal process. (See Chart 19)

CHART 19

New Mill High School

- Clear standards of excellence
- Weekly Professional Growth Blocks
- On-site mentoring improves instruction
- Compensation & advancement tied to performance

Even Joe Barrett has been rejuvenated by these changes. Once close to burnout, he has become a Mentor Teacher with a salary of $60,000 at another district school implementing the TAP model. While the move meant giving up tenure, Joe's earning potential and opportunity for advancement far outweigh the so-called "security" of the past. He now looks to his own merits and accomplishments as the source of his security. (See Chart 20)

CHART 20

Joe Barrett Mentor Teacher

- Renewed interest in teaching
- Mentor Teacher at another TAP school
- Old salary $42,200
- TAP salary $60,000
- Security derived from merits & accomplishments

To replace Joe, Principal Smith has recruited Sharon Mendez, a top graduate at her university. When Dr. Smith handed Sharon the school's math and science prize with her high school diploma five years ago, he never thought she would become a teacher. But in her freshman year of college, Sharon obtained an education scholarship modeled after the military's ROTC program. She attended two summer sessions and completed both her B.S. in biology and her initial teaching certificate in four years. As a sophomore and junior, Sharon began student teaching, grounding herself in the day-to-day classroom experience. As a student teacher at New Mill, Sharon had high performance ratings on the school's appraisal system. And she was able to command a $35,000 starting salary, about 25 percent more than just a few years back. (See Chart 21)

CHART 21

Sharon Mendez Induction Year

- Teaches 4 classes
- 10 days professional development
- Individual growth plan
- Daily mentoring
- Scholarship recipient
- 4-year B.S. in biology plus initial certificate
- Classroom teaching during college
- $35,000 starting salary

As an Induction Year teacher, Sharon has not suffered Russell Sherman's fate. She has a manageable class load of four rather than five classes, ten fully paid professional development days, and a closely supervised growth plan that she works on with her Mentor Teacher. Sharon is as poised to succeed as Russell had been set to fail. The TAP model has also created two new positions, Adjunct Teacher and Faculty Fellow. These positions enable Principal Smith to strengthen the faculty despite a national shortage of good science teachers, while providing valuable "real world" connections for faculty and students.

CHART 22

Marvin Lurman Adjunct Teacher

- Geneticist at bioengineering firm
- Mid-career transition program
- Teaches genetics research elective
- Full-time in 2007

CHART 23

Ginny Dalton Faculty Fellow

- Retired
- 30 years teaching biology
- Distinguished career
- Teaches 2 honors classes

Geneticist Marvin Lurman is a research and development scientist at a local bioengineering firm. Dr. Lurman discovered he loved working with high school students while participating at New Mill's Career Day. He earned an alternative teaching credential using the state's new mid-career transition program. And after impressing the faculty and administration with his knowledge and instructional ability, he was offered an adjunct position teaching an elective course on genetic research. In two years, when he becomes eligible for early retirement, Dr. Lurman will join the New Mill faculty. (See Chart 22)

Ginny Dalton, who retired after 30 years of teaching biology, is now a Faculty Fellow, an honor given to a small number of distinguished retired teachers. Four years into retirement, Ginny realized she missed interacting with students, and was excited to return part-time, teaching two sections of honors biology. (See Chart 23)

Ginny can scarcely believe the transformation of her school. When she left New Mill in 2000, she was disappointed by the state of her profession and its impact on students. But now there is new energy and excitement among her colleagues, improved quality among new hires,

greater parent satisfaction, and significant gains in student performance. All this came to pass thanks to support for TAP at all levels—state, district and school. The faculty came together as a team inspired by Dr. Smith's resourcefulness, energy and leadership. Indeed, his credibility and skill guided the staff through the sometimes-bumpy start-up phase. But the collaborative effort to implement TAP shows that its success goes beyond one principal's achievement. It is a triumph for all of New Mill.

WHAT WE NEED TO DO

In designing and making the TAP model a reality, we have tried to learn from the successes and shortcomings of other reform efforts. Using the five principles of the Teacher Advancement Program as a framework, we examined the teacher quality policies and programs of each state. In the process, we found some strengths, but we also saw the weaknesses that can derail even the best-intentioned reform. (See Chart 24)

CHART 24

Weaknesses of Reforms

- **Not school-centered**
- **Poor design and/or implementation**
- **Lack of continuity**
- **Not comprehensive**

The first sign is a reform that is not school-centered. Too many proposals are not rooted in the classroom realities of teaching and learning. They do not afford teachers the challenge of advancement, and principals are given little latitude to identify and develop talent or to have an impact on the training and certification systems used to attract and screen prospects.

Another sign to look out for is poor design and/or poor implementation. Today, for example, 28 states require or fund induction year programs for beginning teachers.[38] Yet only one state requires and enforces rules that the mentor teacher's experience be directly relevant to the grade or subject matter being taught by the novice teacher.[39]

Lack of continuity is another concern. Consistency of education policies is hard to maintain with a changing cast of governors, legislators, state school chiefs and state board members. A model we should look to is Connecticut which, beginning in the mid-1980s, adopted strong alternative certification, induction and salary increase programs and a rigorous performance-based accountability system for all new teachers. By continuing these reforms, Connecticut has been able to increase the number and quality of teachers in its schools.

But the most significant weakness is the lack of a comprehensive approach. Piecemeal reform may appear to solve one problem, only to create another. While many states are trying to ratchet up standards and requirements for new teachers, for example, they are not giving thought to the nation's broader human capital shortage. Yes, we need to increase standards and requirements, but at the same time, we must create meaningful incentives to attract both talented young people and those in mid-career to the teaching profession.

In short, state education policies must be based on thoughtful design, not political accretion; and teacher quality improvement strategies must be system-wide, not segmented. We can begin to achieve this goal by working together.

Policy leaders: We urge you to start TAP demonstration programs and to allow their requirements and their accomplishments to drive other policy reforms. A steadily expanding network of demonstration schools will help adjust the model. Such programs need not be expensive.

Business leaders: We urge you to sponsor a school or district that is willing to implement TAP. TAP invests strategically in the people who can lift a school to a whole new level of performance. Business understands leverage, and we encourage you to help use it.

Exemplary educators: We urge you to get involved and become the allies of your policy champions. Legislators, state school chiefs, and governors need to know that the most able educators in their states are behind them and are willing to step up to support effective teacher quality reform. Educators can also strengthen TAP by helping us to refine our secondary school model.

We urge all concerned policy and business leaders and exemplary educators to spur the federal government's role. Politicians have competed for the education vote with strategies and promises that acknowledge the teacher quantity and quality problem. Now they must focus on expanding the supply of high-caliber teachers while making the structural changes needed to retain and motivate top teachers. A demonstration school program using federal funds to attract state and local matching efforts would powerfully strengthen the strategies planned.

And as for the Foundation, our work is continuing on many fronts. We are moving ahead with research and policy analyses. We are expanding our technical assistance to TAP demonstration schools by creating and refining Tool Kits for implementing each principle of the TAP model. We are continuing our work in convening national and state conferences for state teams that are interested in establishing demonstration schools.* And we are accelerating our work with professional, government and business leaders—all to ensure that teacher quality finally receives the attention and action it deserves.

* In November 2000, representatives from 21 states met in Arizona to review the Arizona TAP demonstration school project, and develop plans for TAP programs in their respective states.

CONCLUSION

On September 5, 1959, I entered my sixth-grade classroom absolutely certain of one thing—that nothing could top the experience of fifth grade. It had been that great. My teacher had been that inspiring. But by the time I left school that day, my concern had already turned into confident eagerness, and it would stay that way the whole year. For I was in the hands of Elliot Sutton, a teacher who made everything we learned exciting by relating it to something that was real in our lives.

In 1959, the impact of Sputnik was tangible with implications for everyone. The launching of the satellite two years before had stirred strong feelings in Americans of surprise, concern and envy. In American leaders, it spurred a call to action. And so the race to space began.

The challenge of that race was felt all the way into my classroom, and not just because the L.A. Unified School District had swiftly adopted a more rigorous curriculum in math and science. It affected me because Mr. Sutton made it his business to equip us to meet the challenge.

Specifically, Mr. Sutton prepared us to meet the very high standards he set in mathematics, standards evident in the three-part, end-of-the-year examination we proudly sweated through. He taught us the importance of being able to think on our feet by making us practice the art of extemporaneous speaking. And in case there was doubt in any sixth-grader's mind about just where the Union of Soviet Socialist Republics was, he made sure we were well-versed in geography, which he achieved by means of his captivating daily map "contest." This involved a pair of contestants standing up in front of the Rand McNally "world" pulled down over the blackboard, each trying to be the first to place a finger on Moscow or Miami, Damascus or Detroit. It was a game, yes, but one that motivated us to go home at night and spend hours pouring over world maps.

But Mr. Sutton was more than a great source of knowledge and a spur to our learning. He was a person we wanted to do right by. You see, Mr. Sutton liked kids, and he understood when to push us and when to have fun; for instance, when he used the classroom technology of our day—an AM radio—to let us listen to parts of the final game of the '59 World Series between the Los Angeles Dodgers and Chicago White Sox. In fact, Mr. Sutton himself had the grace of an athlete, and he had the look of a best friend, too. He was firm and kind, and the result was he made us understand that what we did in sixth grade was completely relevant to our future in high school and beyond.

I imagine that all of you can also recall a teacher like Mr. Sutton. But great teachers are about even more than what they impart. They stand for the fact that there can be such a thing as a great teacher. They shed light on the reality of work that is, under all circumstances, the most important of jobs, but under all too few circumstances the most rewarding.

I never took having good teachers for granted, though they were granted by a system that was more respected and better in tune with the times. But having had them has made me intensely aware of the injustice of so many students being denied them. The need to assure that every child has the opportunity afforded by good teachers is urgent, as urgent as the need to be well-nourished and for exactly the same reason. A child's growth depends on it.

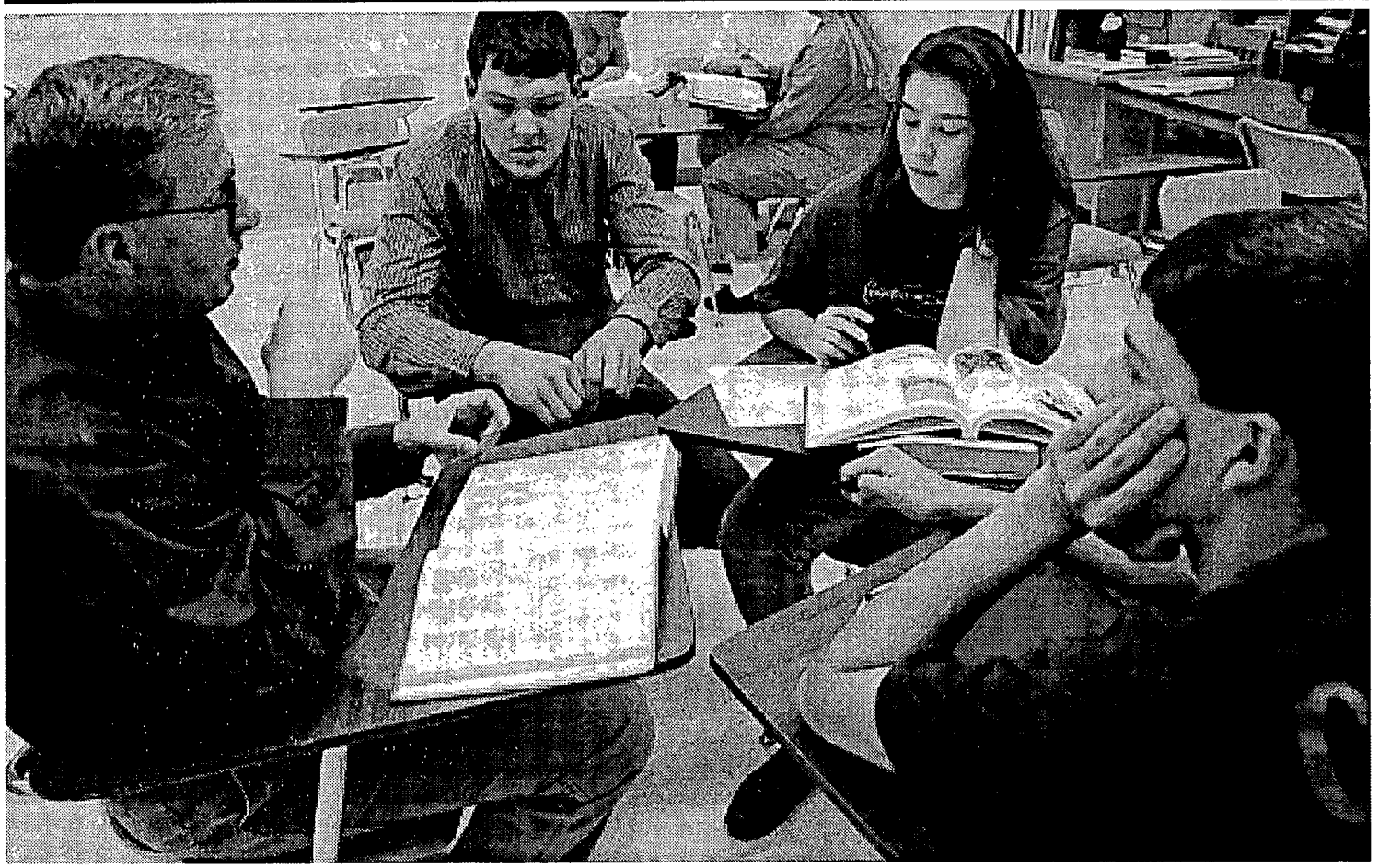
I see this growth in my five-year old as he's progressed toward kindergarten, and I feel this urgency in what will seem a matter of moments, before he's where his next older brother is ... going off to college. And I know that every day between now and then, the extent and importance of what he, like every child, can learn from good teachers is huge. For I, like you, have seen the impact of good teachers on the lives and hopes of children everywhere in suburban, rural and inner city settings. It is swift, enduring, and knows no bounds.

Working over the past two decades in K through 12 education and, in particular, with the Milken Educator Awards program, does give me great hope about the possibilities for American education being vibrant and responsive. Our task now is to establish a new structure of education that assures that teachers who make it this way are not the exception, but the norm. A structure that will draw, nurture and reward more people of intelligence and talent, of vitality, commitment and generous spirit.

American education can have that shape and thrust. It can reflect the spirit of opportunity upon which this nation was founded. And it can make a reality the wide-open road that anyone can travel to his or her hard-won destination.

Should any of the challenges before us ever obscure this goal, we have only to think of this. Consider what we want for every child, and we shall know just what to provide every teacher—rich opportunities, high expectations, and sound preparation for the future. This is what every child needs. And this is what all teachers deserve.

Lowell Milken is a product of public education, beginning with his own experiences in California's K-12 public schools. He graduated summa cum laude and Phi Beta Kappa from the University of California at Berkeley, where he was recognized with the School of Business Administration's Most Outstanding Student Award, and was in the top of his class at UCLA Law School. He and his wife Sandy are parents to four sons who range in age from a five-year-old to a college graduate. As a successful and innovative businessman, Mr. Milken is an active and hands-on philanthropic leader who, in addition to being one of the youngest Americans ever to establish a foundation of this size, was recently named by Worth Magazine as one of the fifteen most generous living Americans.



NOTES

1 U.S. Department of Education, National Center for Educational Statistics. *Digest of Educational Statistics.* "Table 31. Total expenditures of educational institutions related to the gross domestic product, by level of institution: 1959-60 to 1998-99." Available online: nces.ed.gov/pubs2000/digest99

2 U.S. Department of Education, National Center for Educational Statistics. *Digest of Educational Statistics.* "Table 3. Enrollment in educational institutions, by level and by control of institution: 1869-70 to fall 2009." Available online: nces.ed.gov/pubs2000/digest99

3 U.S. Department of Education, National Center for Educational Statistics. *Digest of Educational Statistics.* "Table 4. Teachers in elementary and secondary schools, and senior instructional staff in institutions of higher education, by control of institution: fall 1970 to fall 2009." Available online: nces.ed.gov/pubs2000/digest99

4 David Haselkorn and Louis Harris. *The Essential Profession: A National Survey of Public Attitudes toward Teaching, Educational Opportunity and School Reform.* (Belmont, MA: Recruiting New Teachers, 1998)

5 William L. Sanders and Joan C. Rivers. "Cumulative and Residual Effects of Teachers on Future Student Academic Achievement," from The Education Trust, *Thinking K-16: Good Teaching Matters: How Well-Qualified Teachers Can Close the Gap,* vol. 3, no. 2 (Washington, D.C.: Summer 1998): pp. 3-4.

6 Heather Jordan, Robert Mendro, and Dash Weerasinghe. "Teacher Effects on Longitudinal Student Achievement." (Dallas Independent School District, 1997) from The Education Trust, *Thinking K-16: Good Teaching Matters: How Well-Qualified Teachers Can Close the Gap,* vol. 3, no. 2 (Washington, D.C.: Summer 1998): pp. 4-5.

7 William L. Sanders to Lewis C. Solmon. Correspondence of the Milken Family Foundation. (Santa Monica, CA: June 2000)

8 The Education Trust. *Thinking K-16: Good Teaching Matters: How Well-Qualified Teachers Can Close the Gap,* vol. 3, no. 2 (Washington, D.C.: Summer 1998): p. 10.

9 Ronald Ferguson. "Paying for Public Education: New Evidence on How and Why Money Matters," *Harvard Journal on Legislation* 28 (Summer 1991): pp. 465-498.

10 Wenglinsky, Harold. *How Teaching Matters: Bringing the Classroom Back into Discussions of Teacher Quality.* (Princeton: ETS, 2000)

11 Bureau of Economic Analysis. *National Income and Product Accounts.* WEFA, Milken Institute. (Third Quarter 2000)

12 U.S. Bureau of Labor Statistics. Employment and Earnings; Milken Institute (calculations).

13 Merrill Lynch & Co. *Creating the Dominant Virtual University* (1999): p. 7.

14 Gary S. Becker and Andrew M. Rosenfield. *An Investment in Education Pays the Best Return* (working paper, 1999): pp. 6-7; and U.S. Federal Reserve (financial assets).

15 Bloomberg and Milken Institute (calculations).

16 Bloomberg and Milken Institute (calculations).

17 U.S. Bureau of the Census. *Current Population Survey.* Unicon Research Corp. (April 2000)

18 Keith Gay. *The Age of Knowledge.* NationsBanc Montgomery Securities (November 1998): p. 85.

19 Merrill Lynch & Co. *Creating the Dominant Virtual University* (1999): p. 7.

20 Information Technology Association of America. *Bridging the Gap: Information Technology Skills for a New Millennium.* (Arlington, VA: 2000)

21 Daniel McGinn, "Internet Brain Drain" *Newsweek.* vol. 134, no. 24 (December 13, 1999): pp. 61-68.

22 Peter D. Hart Research. *A series of focus groups of college freshmen and college-bound high school seniors.* (May 25-26, 1999)

23 The Milken Family Foundation and Peter D. Hart and Associates, Inc. (February, March, April 2000)

24 "Beginning Teacher Salaries and Expected Salaries of College Graduates to Be Hired in Spring." *Survey & Analysis of Salary Trends 1998.* Department of Research, American Federation of Teachers. Available online: aft.org/research/survey/tables/tables.html

25 "The Earnings Gap." *Education Week* analysis of U.S. Census Bureau's 1992-1999 "Current Population Survey—March Supplement," *Education Week: Who Should Teach?* (January 13, 2000): p. 30.

26 Lewis C. Solmon to Lowell Milken, Correspondence of the Milken Family Foundation. (Santa Monica, CA: 1999)

27 "Sex, Race, Ethnicity, and Performance on the GRE General Test 1999-2000." *A Technical Report*, published for the Graduate Record Examinations Board by Educational Testing Services. Available online: gre.org

28 "A Picture of the Teacher Pipeline: Baccalaureate and Beyond." *Education Week* analysis of U.S. Department of Education's 1993, 1994, and 1999 "Baccalaureate and Beyond" surveys. *Education Week: Who Should Teach?* (January 13, 2000): pp. 16-18.

29 Dale Ballou. "Do Public Schools Hire the Best Applicants?" *The Quarterly Journal of Economics* (February 1996): pp. 97-133.

30 "A Picture of the Teacher Pipeline: Baccalaureate and Beyond." *Education Week* analysis of U.S. Department of Education's 1993, 1994, and 1999 "Baccalaureate and Beyond" surveys. *Education Week: Who Should Teach?* (January 13, 2000): pp. 16-18.

31 "The High Cost of Teaching," *Education Week* analysis of U.S. Census Bureau's 1992-1999 "Current Population Survey—March Supplement." *Education Week: Who Should Teach?* (January 13, 2000): p. 30.

32 Educational Testing Service. *How Teachers Compare: The Prose, Document and Quantitative Skills of America's Teachers* (Princeton: ETS, 1999): p.22.

33 "Industry Report 1999: An Overview of Employer-Sponsored Training in the United States." *Training* (October 1999): p. 12.

34 Lewis C. Solmon to Lowell Milken, Correspondence of the Milken Family Foundation. (Santa Monica, CA: 2000)

35 Julie Blair. "ELC, Milken Foundation Launch Teacher-Quality Program." *Education Week*, vol. 19, no. 34 (May 3, 2000): p. 26.

36 Cynthia Howell. "State OKs charter school plan for Rogers district." *The Arkansas Democrat-Gazette*. (January 11, 2000)

37 Academic Excellence Council, "CS/CS/HBs 63 & 77 and 891, 995, 2009, and 2135, 2nd ENG. - Teacher Quality: EDUCATE 2000." 2000 Summary of Passed Legislation. Florida House of Representatives. Available online: www.leg.state.fl.us/session/2000/house/summaries/

38 "Supporting New Teachers." *Education Week: Who Should Teach?* (January 13, 2000): p. 56.

39 "Teacher Policy Notes." *Education Week: Who Should Teach?* (January 13, 2000): p. 61.

BIBLIOGRAPHY

Allen, Jeanne. *Monthly Letter to Friends of the Center for Education Reform* 59, Washington, D.C.: Center for Education Reform, January 2000.

"America's education choice." *Economist*, 1 April 2000, 17-18.

American Council on Education. *To Touch the Future: Transforming the Way Teachers Are Taught – An Action Agenda for College and University Presidents*. Washington, D.C.: American Council on Education, 1999.

American Federation of Teachers, Department of Research. "Beginning Teacher Salaries and Expected Salaries of College Graduates to Be Hired in Spring." *Survey & Analysis of Salary Trends 1998*. Available online: www.aft.org/research/survey/tables/tables.html

American Federation of Teachers. *Teacher Salary Boost Is One Way to Stem Teacher Shortages*. Washington D.C.: American Federation of Teachers, 1998.

Andrew, Michael D. "Differences Between Graduates of 4-Year and 5-Year Teacher Preparation Programs." *Journal of Teacher Education*, vol. 41, no. 2 (March-April): 45-51.

Andrew, Michael D. and Richard L. Schwab. "Has Reform in Teacher Education Influenced Teacher Performance? An Outcome Assessment of Graduates of an Eleven-University Consortium." *Action in Teacher Education*, vol. 17, no. 3 (fall 1995): 43-53.

Andrews, Theodore, Laura Andrews, and Christine Pape. *Manual on Certification*. Dubuque, Iowa: National Association of State Directors of Teacher Education & Certification, 1996.

Archer, Jeff. "Teacher Recruitment Harder in Urban Areas." *Education Week*, vol. 19, no. 20 (26 January 2000): 7.

Ayers, Jerry B. "Another Look at the Concurrent and Predictive Validity of the National Teacher Examinations." *Journal of Educational Research*, vol. 81, no. 3 (January/February 1988): 133-137.

Bain & Company. *Boston Public Schools: High School Restructuring*. (9 March 1998)

Ball, Deborah Loewenberg and Suzanne M. Wilson. "Knowing the Subject and Learning to Teach It: Examining Assumptions About Becoming a Mathematics Teacher." Paper presented at the annual meeting of the American Educational Research Association, Boston, Massachusetts, April 1990.

Ballou, Dale. "Do Public Schools Hire the Best Applicants?" *The Quarterly Journal of Economics* (February 1996): 97-134.

Becker, Gary S. and Andrew M. Rosenfield. *An Investment in Education Pays the Best Return*. (1999)

Blackman, Mildred Collins and Leslie T. Fenwick. "The Principalship: Looking for Leaders in a Time of Change." *Education Week*, vol. 19, no. 29 (29 March 2000): 68, 46.

Blair, Julie. "ELC, Milken Foundation Launch Teacher-Quality Program." *Education Week*, vol. 19, no. 34 (3 May 2000): 26.

Bloomberg Financial Markets.

Boe, Erling E., Sharon A. Bobbitt, Lynne H. Cook, Summer D. Whitener, and Anita L. Weber. "Why Didst Thou Go? Predictors of Retention, Transfer, and Attrition of Special and General Education Teachers from a National Perspective." *Journal of Special Education*, vol. 30, no. 4 (1997): 390-411.

Boles, Katherine C. and Vivien Troen. "America's Teachers: How Good, and for How Long?" *Education Week*, vol. 19, no. 21 (2 February 2000): 39.

Brophy, Jere and Thomas L. Good. "Teacher Behavior and Student Achievement." In *Handbook of Research on Teaching, Third Edition*, ed. Merlin C. Wittrock, 328-375. New York: Simon & Schuster Macmillan, 1986.

Bryk, Anthony S., Yeow Meng Thum, John Q. Easton, and Stuart Luppescu. *Academic Productivity of Chicago Public Elementary Schools: A Technical Report*. Examining Productivity Series. Chicago, Illinois: Consortium on Chicago School Research, March 1998.

Bureau of Economic Analysis. *National Income and Product Accounts: First Quarter 2000.* WEFA.

California, Department of Finance. *Budget Summary Report.* Sacramento, California, 1998. Available online: www.dof.ca.gov/html/budgt8-9/k12.htm

California State University Institute for Education Reform. *Paying for What You Need: Knowledge- and Skill-Based Approaches to Teacher Compensation.* Sacramento, California: CSU Institute for Education Reform, 1997.

California State University Institute for Education Reform and California Education Policy Seminar. *Pipeline to the Future: Developing a Statewide Teacher Recruitment Plan for California.* Sacramento, California: CSU Institute for Education Reform, 1997.

Chan, Yvonne, et al. "A Case Study of the Vaughn Next Century Learning Center's School-Based Performance Award Program." Madison, Wisconsin: Consortium for Policy Research in Education, January 1999.

Colonial School District. *Performance Based Compensation Plan: Teacher Achievement Award System Criteria and Group Achievement Award System Building Goals.* Colonial School District, Pennsylvania, 1999.

Danielson, Charlotte. *Enhancing Professional Practice: A Framework for Teaching.* Alexandria, Virginia: Association for Supervision and Curriculum Development, 1996.

Darling-Hammond, Linda. *Solving the Dilemmas of Teacher Supply, Demand, and Standards: How We Can Ensure a Competent, Caring, and Qualified Teacher for Every Child.* National Commission on Teaching & America's Future, 1999. Available online: www.tc.columbia.edu/~teachcomm/

Darling-Hammond, Linda. *Doing What Matters Most: Investing in Quality Teaching.* New York, New York: National Commission on Teaching and America's Future, 1997.

Darling-Hammond, Linda. *What Matters Most: Investing in Quality Teaching.* New York, New York: National Commission on Teaching and America's Future, 1996.

Darling-Hammond, Linda and Deborah Lowenberg Ball. *Teaching for High Standards: What Policymakers Need to Know and Be Able to Do.* CPRE Joint Report Series, JRE:-04. Philadephia, Pennsylvania: Consortium for Policy Research in Education in association with the National Commission on Teaching and America's Future, 1998.

Douglas County School District. *Teachers Performance Pay Plan.* Castle Rock, Colorado, November 1997.

Douglas County School District. *Performance Pay Plan for Teachers.* Castle Rock, Colorado: Douglas County School District and Douglas County Federation of Teachers, 1994.

Dunnan, Gardner. Correspondence with Thomas C. Boysen. Correspondence of the Milken Family Foundation. Santa Monica, California: Spring 2000.

Dusewicz, Russell A. and Francine S. Beyer. *Dimensions of Excellence: Survey Instruments for School Improvement.* Philadephia, Pennsylvania: Research for Better Schools, 1988.

Eckl, Corina. "The Cost of Corrections." *State Legislatures,* vol. 24, no. 2 (1998): 30-34.

Econsult Corporation. *Report on Data Available to the Colonial School District Performance-Based Compensation Review Team – Preliminary Draft.* Philadephia, Pennsylvania: Econsult Corporation, 1998.

Education Research Services. *Salaries Paid to Professionals in Schools, 1999-2000,* Part 2. Arlington, Virginia: Education Research Services, 2000.

Educational Testing Service. *How Teachers Compare: The Prose, Document and Quantitative Skills of America's Teachers.* Princeton, New Jersey: ETS, 1999.

Education Trust. *Thinking K-16: Good Teaching Matters: How Well-Qualified Teachers Can Close the Gap,* vol. 3, no. 2, Washington, D.C.: Education Trust, Summer 1998.

Evertson, Carolyn M., Willis D. Hawley and Marilyn Zlotnik. "Making a Difference in Educational Quality Through Teacher Education." *Journal of Teacher Education,* May-June 1985, 2-12.

Ferguson, Patrick and Sid T. Womack. "The Impact of Subject Matter and Education Coursework on Teaching Performance." *Journal of Teacher Education*, vol. 44, no.1 (January-February 1993): 55-63.

Ferguson, Ronald F. "Paying for Public Education: New Evidence on How and Why Money Matters." *Harvard Journal on Legislation*, vol. 28 (Summer 1991): 465-98.

Ferguson, Ronald F. and Helen F. Ladd. "How and Why Money Matters: An Analysis of Alabama Schools." In *Holding Schools Accountable*, ed. Helen Ladd, 265-298. Washington, D.C.: Brookings Institution, 1996.

Finn, Chester E. Jr., Marci Kanstoroom, and Michael J. Petrilli. *The Quest for Better Teachers: Grading the States.* Washington, D.C.: Thomas B. Fordham Foundation, 1999.

Gay, Keith. *The Age of Knowledge.* NationsBanc Montgomery Securities, 1998.

Gitomer, Drew H. and Mari A. Pearlman. "Are teacher licensing tests too easy? Are standards too low?" *ETS Developments*, vol. 45 no. 1 (Fall 1999): 4-5.

Goldhaber, Dan D. and Dominic J. Brewer. "Teacher Licensing and Student Achievement." In *Better Teachers, Better Schools*, ed. Marci Kanstoroom and Chester E. Finn, Jr. , 83-102. Washington, D.C.: Thomas B. Fordham Foundation, 1999. Available online: www.edexcellence.net/better/tchrs/teachers

Graduate Record Examination. "Sex, Race, Ethnicity, and Performance on the GRE General Test 1999-2000." Princeton, New Jersey: Educational Testing Services, 2000. Available online: www.gre.org

Greenwald, Rob, Larry V. Hedges and Richard D. Laine. "The Effect of School Resources on Student Achievement." *Review of Educational Research*, vol. 66, no. 3 (fall 1996): 362-396.

Gross, Martin L. "Does the Route to Teaching Need a Fresh Start?" *Education Week*, vol. 19, no. 23, (16 February 2000): 52, 30.

Guyton, Edith and Elizabeth Farokhi. "Relationships among Academic Performance, Basic Skills, Subject Matter Knowledge, and Teaching Skills of Teacher Education Graduates." *Journal of Teacher Education*, September-October 1987, 37-42.

Hanushek, Eric A. "The Impact of Differential Expenditures on School Performance." *Educational Researcher* (May 1989): 45-62.

Hanushek, Eric A. "Teacher Characteristics and Gains in Student Achievement: Estimation Using Micro Data." *American Economic Review*, vol. 61, no. 2 (May 1971): 280-288.

Hanushek, Eric A. and Richard R. Pace. "Who Chooses to Teach (and Why)?" *Economics of Education Review*, vol. 14, no. 2 (1995): 101-117.

Haselkorn, David and Louis Harris. *The Essential Profession: A National Survey of Public Attitudes Toward Teaching, Educational Opportunity and School Reform.* Belmont, Massachusetts: Recruiting New Teachers, 1998.

Hawk, Parmalee P., Charles R. Coble, and Melvin Swanson. "Certification: It Does Matter." *Journal of Teacher Education*, March-April 1985, 13-15.

Hirsch, Eric, Julia E. Koppich, and Michael S. Knapp. *What States Are Doing to Improve the Quality of Teaching: A Brief Review of Current Patterns and Trends.* Seattle, Washington: University of Washington Center for the Study of Teaching and Policy, 1998.

Howell, Cynthia. "State OKs Charter School Plan for Rogers District." *The Arkansas Democrat-Gazette*, 11 January 2000.

"Industry Report 1999: An Overview of Employer-Sponsored Training in the United States." *Training*, October 1999, 12.

Information Technology Association of America. *Bridging the Gap: Information Technology Skills for a New Millennium.* Arlington, Virginia, 2000.

Ingersoll, Richard. "The Problem of Underqualified Teachers in American Secondary Schools." *Education Researcher*, March 1999.

Irvine Unified School District. *Certificated Salary Schedule 1999-2000* (Rev. July 1999). Irvine, California.

Jago, Carol. "Who should get merit pay? Ask the students!" *Los Angeles Times*, 16 March 2000, *Our Times* section.

Jordan, Heather, Robert Mendro, and Dash Weerasinghe. "Teacher Effects on Longitudinal Student Achievement." (Dallas Independent School District, 1997) from *Thinking K-16: Good Teaching Matters: How Well-Qualified Teachers Can Close the Gap*, vol. 3, no. 2. Washington, D.C.: The Education Trust, Summer 1998.

Kane, Parsons & Associates, Inc. *A Survey of Principals in Schools with Teach for America Corps Members: Report of Findings*. New York, New York: Kane, Parsons & Associates, Inc., 1999.

Keegan, Lisa Graham. "Transforming American Education." *Bulletin of the Center for Civic Innovation at the Manhattan Institute*, no. 19 (July 1999).

Kwiatowski, Michael. "Debating Alternative Teacher Certification: A Trial by Achievement." In *Better Teachers, Better Schools*, ed. Marci Kanstoroom and Chester E. Finn, Jr., 215-237. Washington, D.C.: Thomas B. Fordham Foundation, 1999. Available online: www.edexcellence.net/better/tchrs/teachers

Laule, Leah R. Conversation with Cheryl L. Fagnano, 16 March 2000.

McGinn, Daniel. "The Internet Brain Drain." *Newsweek*, vol. 134, no. 24 (13 December 1999): 61-68.

Mann, Larry. "Finding Times to Collaborate." *Education Update* (Association for Supervision and Curriculum Development), vol. 42, no. 2 (March 2000).

Marlow, Leslie, Duane Inman and Maria Betancourt-Smith. "Beginning Teachers: Are They Still Leaving the Profession?" *The Clearing House*, vol. 70, no. 4 (March/April 1997): 211-214.

Merrill Lynch & Co. *Creating the Dominant Virtual University*. (1999)

Merrick, Joann., Kathleen McCreerry, and Jim Brown. *Student Success in a Standards-Based System: Moving Beyond Social Promotion and Retention*. Association of California School Administrators, 1998. Available online: www.acsa.org/publications/Social_Promotion/index.l

Merrow, John. "The Teacher Shortage: Wrong Diagnosis, Phony Cures." *Education Week*, vol. 19, no. 6 (6 October, 1999): 64, 48.

Milanowski, Anthony and Eileen Kellor. "Vaughn Next Century Learning Center Performance Pay Survey: Preliminary Report." Madison, Wisconsin: Consortium for Policy Research in Education, September 1999.

Millman, Jason (Editor). *Grading Teachers, Grading Schools: Is Student Achievement a Valid Evaluation Measure?* Thousand Oaks, California: Corwin Press, 1997.

Mittelhauser, Mark. "The Outlook for College Graduates, 1996-2006: Prepare Yourself (Number of College Graduates Exceeds College-Level Jobs)." *Occupational Outlook Quarterly*, vol. 42, no. 2 (1998): 3-10.

Mullens, John E., Richard J. Murname and John B. Willett. "The Contribution of Training and Subject Matter Knowledge to Teaching Effectiveness: A Multilevel Analysis of Longitudinal Evidence from Belize." *Comparative Education Review*, vol. 40, no. 2 (May 1996): 139-157.

Murname, Richard J. and Barbara R, Phillips. "What Do Effective Teachers of Inner-City Children Have in Common?" *Social Science Research*, vol. 10 (1981): 83-100.

National Commission on the Cost of Higher Education. *Straight Talk About College Costs and Prices*. Washington, D.C.: American Council on Education, 1998.

Neilsen, Barbara. "Bold Solutions Offered for S.C. to Get Quality Teachers." *The State* (Columbia, South Carolina), 16 April 2000.

Newman, Fred M., Gudelia Lopez, and Anthony S. Bryk. *The Quality of Intellectual Work in Chicago Schools: A Baseline Report*. Chicago, Illinois: Consortium on Chicago School Research, October 1998.

1999 National Education Summit. "Section II: Issues Briefs, Improving Teacher Quality" in *1999 National Education Summit Briefing Book*, 36-45. (1999) Available online: www.summit99.org/briefing/briefing.

Palmaffy, Tyce. "Do Teachers Need to Be 'Certified'? States Ease Strict Rules to Lure New Blood to Teaching." *Investor's Business Daily*, vol. 28 (December 1999).

Peter D. Hart Research. "A Series of Focus Groups of College Freshmen and College-Bound High School Seniors." Santa Monica, California: Milken Family Foundation, 2000.

Quality Counts 2000: Who Should Teach? – An *Education Week*/Pew Charitable Trusts report on education in the 50 states. (13 January 2000)

Riel, Margaret. "The Future of Teaching." In *Education and Technology: Future Visions.* Washington, D.C.: Office of Technology Assessment, 1995.

Riel, Margaret. "Teaching and Learning in the Educational Communities of the Future." In *ASCD Yearbook 1998*, ed. Chris Dede, 171-198. Alexandria, Virginia: Association for Supervision and Curriculum Development, 1998.

Rosenshine, Barak and Robert Stevens. "Teaching Functions." In *Handbook of Research on Teaching, Third Edition*, ed. Merlin C. Wittrock, 376-391. New York: Simon & Schuster Macmillan, 1986.

Sanders William L. and Joan C. Rivers. "Cumulative and Residual Effects of Teachers on Future Student Academic Achievement," in *Thinking K-16: Good Teaching Matters: How Well-Qualified Teachers Can Close the Gap*, vol. 3, no. 2. Washington, D.C.: The Education Trust, Summer 1998.

Sanders, William L. Correspondence with Lewis C. Solmon. Correspondence of the Milken Family Foundation. Santa Monica, California: June 2000.

Shulman, Lee S. "Knowledge and Teaching: Foundations of the New Reform." *Harvard Educational Review*, vol. 57, no. 1 (February 1987): 1-22.

Snyder, Howard N. and Melissa Sickmund. *Juvenile Offenders and Victims: 1999 National Report*. Washington, DC: Office of Juvenile Justice and Delinquency Prevention, 1999.

Solomon, Monica. "Teachers as Leaders." *Rethinking Schools: An Urban Education Journal*, vol. 14, no. 3 (Spring 2000).

Stodolsky, Susan S. "Teacher Evaluation: The Limits of Looking." *Educational Researcher* (November 1984): 11-18.

Strauss, Robert B. and Elizabeth A. Sawyer. "Some New Evidence on Teacher and Student Competencies." *Economics of Education Review*, vol. 5, no. 1 (1986): 41-48.

Sultanik, Jeffrey T. "Bonus Pay for Teachers." *American School Board Journal*, February 2000, 34-36.

Summers, Anita A. and David L. Crawford. "Observations on Existing Performance-Based Compensation Systems for Teachers – Prelimary Draft." The Wharton School of the University of Pennsylvania and Econsult Corporation, November 1999.

Tatel, Edith S. "Teach for America: An Effective Emergency Teaching Corps." Paper presented at the annual meeting of the American Association for Colleges of Teacher Education, Phoenix, Arizona, February 1997.

Teach For America. *Statistical History of Teach For America: 1990-1999.*

Tirozzi, Gerald N. "The Principalship: School Reform's Missing Imperative." *Education Week*, vol. 19, no. 29 (29 March 2000): 68, 44.

U.S. Bureau of the Census. *Current Population Survey.*

U.S. Bureau of the Census. *Higher Education Means More Money, Census Bureau Says.* Washington, D.C., 1998. Available online: www.census.gov/Press-Release/cb98-221.html

U.S. Bureau of Labor Statistics. *Employment and Earnings.*

U.S. Department of Education, National Center for Educational Statistics. *The Condition of Education.* Washington D.C., 1999.

U.S. Department of Education, National Center for Educational Statistics. *Digest of Educational Statistics, 1999.* NCES 2000-031. Washington, D.C.: 2000. Available online: nces.ed.gov/pubs2000/digest99

Waldfogel, Dean. Conversation with Cheryl L. Fagnano, 16 March 2000.

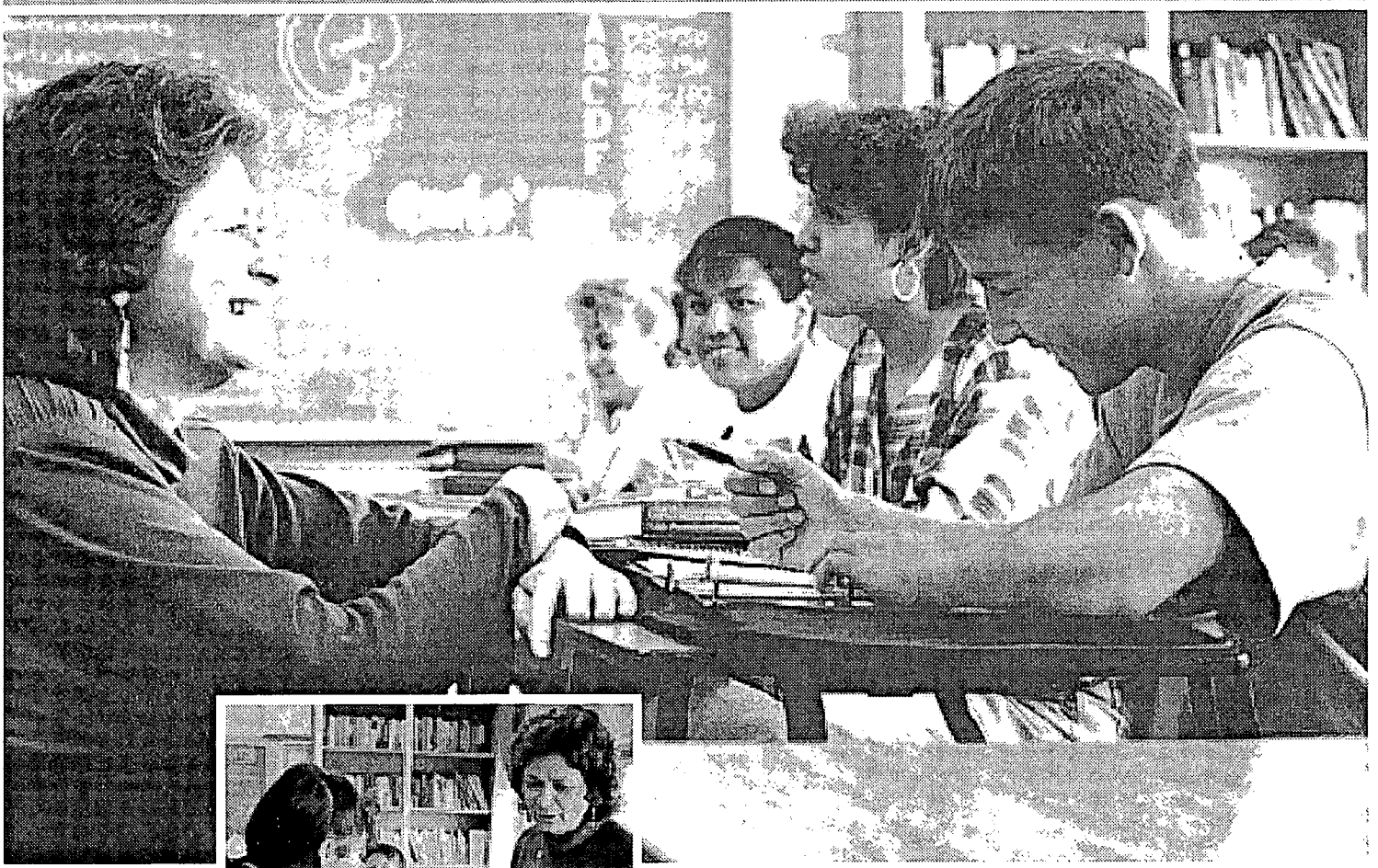
Webster, William J. "Selecting Effective Teachers." *Journal of Educational Research,* vol. 81 no. 4 (March-April 1988): 245-253.

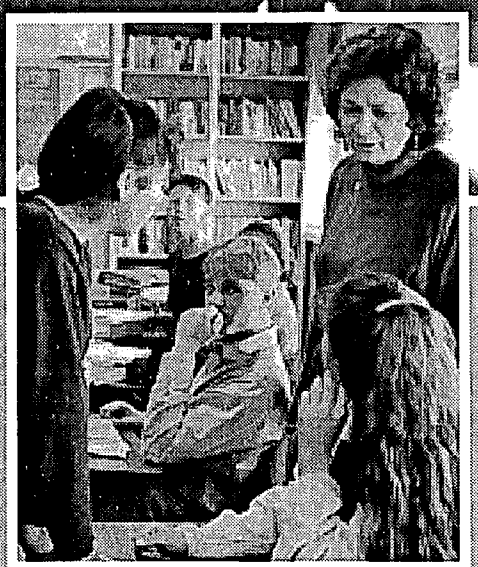
Wenglinsky, Harold. *How Teaching Matters: Bringing the Classroom Back into Discussions of Teacher Quality.* Princeton: ETS, 2000.

Wright, S. Paul, Sandra P. Horn and William L. Sanders. "Teacher and Classroom Context Effects on Student Achievement: Implications for Teacher Evaluation." *Journal of Personnel Evaluation in Education,* vol. 11 (1997): 57-67.

TEACHING AS THE OPPORTUNITY:

Issues to Consider





In June 2000, following a keynote address by Lowell Milken at the 2000 Milken Family Foundation National Education Conference, more than 600 distinguished educators, state legislators, state school chiefs and other education, business and community leaders accepted his invitation to help further shape the Teacher Advancement Program. This was done in a series of meetings during which Conference participants studied and discussed details of the approach.

The questions, concerns and recommendations of Conference participants have been useful in clarifying the proposal. The purpose of this section is to respond to issues raised by Conference participants in the continuous refinement of our strategy to attract, retain and motivate high-quality teachers. It is worth reemphasizing that no one model can fit the 105,000 schools attended by American students. Persons who want to craft models around the principles of the Teacher Advancement Program may find these answers useful in furthering their own efforts to reshape the profession in their school, district or state.

Implementing TAP

TAP is a comprehensive and systemic strategy. Is it possible to successfully take on so many different reforms at once?

To create school reform that is truly effective and sustaining, reform efforts must be comprehensive.

The norm in American public education over the last half a century has been piecemeal change; namely, layer upon layer of unrelated reforms. This so-called *reform cycle* has failed to produce results. Without a mechanism that coordinates these reforms into a coherent targeted effort, these programs fail.

For example, in the last decade, most states have established teaching and learning standards and are developing accountability systems for measuring student learning. In that same time, schooling has remained essentially the same, and there have been few gains in student learning. Although we know that teachers are the single most pivotal element in the educational equation, most recent standards and accountability efforts have largely ignored teachers. A comprehensive strategy that directly addresses all of the essential factors of restructuring the teaching profession—and makes teachers central to school reform and improvement—is the surest route to effect meaningful change. The Teacher Advancement Program does this.

TAP is a comprehensive and systemic strategy focusing on teachers. It addresses recruitment, training, induction, professional development, compensation, performance evaluation and career advancement—within a conceptual framework that includes five key principles. These principles are multiple career paths; market-driven compensation; performance-based accountability; ongoing, applied professional growth; and expanding the supply of high-quality educators. While each is powerful, all the principles must be in place to assure effective and lasting reform.

Is there a prescribed standard approach that states and districts should follow to make the transition to the Teacher Advancement Program model?

There is no single, standard approach to adopting TAP. Because each state and local district situation is different, with its own local and state laws and collective bargaining agreements, application of these principles must be tailored to its context. One of the strengths of the model is its adaptability to a range of different instructional philosophies and geographic settings. The Foundation can provide technical assistance to interested states, districts and schools.

Would it make more sense from an overall staffing perspective to consider this model on a district-wide basis, rather than at an individual school?

While it is true that the secondary school model presented here sets forth the application within the specific setting of a single school, the plan's flexibility would easily allow implementation on a district-wide level. In either case, the crucial ingredient is educators with understanding, ownership, commitment and enthusiasm for the principles of the Teacher Advancement Program.

In some cases, it may be desirable, short-term, to establish a single or limited number of demonstration models within a district, operated either by the state or local district. This will enable the features of the Teacher Advancement Program to be compared against traditional school structures operating within the same district.

During the transition, what is the process for selecting Mentor and Master Teachers?

A school that adopts the Teacher Advancement Program model will need to reconfigure its existing staff. In this reconfiguration, while it is imperative that the proficiency of teachers at each level matches those recommended by TAP, each TAP school may develop a reconfiguration system that meets its specific needs. In all events, it is recommended that there be broad involvement of the faculty and administration, and that a consensus be reached regarding these appointments. Many sources of evidence should be considered in selecting the Master and Mentor Teachers. Included in this information would be an assessment of the Mentor or Master candidate's ability to work with adults as well as children.

We recommend that the following steps be taken:

1. **Establish a staffing committee**. This committee should include representation from outside the school site.
2. **Reconfigure existing staff**. Faculty may be required to undergo various assessments that will determine who is placed at the various teacher levels.
3. **Develop a recruitment plan**. Begin recruitment efforts to fill any open positions at the school.
4. **Provide transition training**. Provide professional development for all faculty to help them adapt to their new roles.
5. **Develop support**. Establish a support mechanism within the school to address TAP issues that may arise from the community, parents, teachers, school board or other connected parties.

What "grandfather" provisions should there be for current Mentor or Master Teachers?

There should be no "automatic" qualifications for persons who are currently Mentors or Masters, such as team leaders or high school department chairs. They must still undergo the rigorous qualification procedures to become identified as TAP Mentor or Master Teachers.

What are the opportunities for qualified teachers who cannot get jobs as Mentor or Master Teachers at their current school?

TAP's market-based compensation principle provides clear incentive for a teacher qualified to be a Master at schools with no openings to move to schools that do not have enough Master Teachers on staff. Moreover, the current "bumping system" in public education often results in the clustering of the best and most experienced teachers at relatively affluent, suburban schools rather than at poorer, urban schools. TAP helps to redress such inequity by rewarding high-performing teachers who work in under-served areas. Since high-performing teachers are likely to opt for career advancement at the new school, TAP will serve to both reward and redistribute talent more equitably across schools.

How does the Teacher Advancement Program address tenure?

Upon full implementation, TAP proposes to replace tenure with three-year renewable contracts whose renewal will be subject to successful performance. However, because tenure is still seen as a valued component of current teacher compensation packages, all teachers who presently have tenure will retain it. New teachers will be considered for tenure after five to seven years in the classroom, and it will be awarded only after a rigorous review by Master Teachers, the principal and outside evaluators.

How do you address collective bargaining agreements?

The Teacher Advancement Program might emanate from either the local or state level. In certain school districts, the decision to adopt TAP might be arrived at through the process of collective bargaining. On the other hand, a state law authorizing TAP could exempt demonstration sites from collective bargaining.

What role can parents play in a TAP school?

In any successful school, the parents are an important support system for both teachers and students. They are the caulk that fills the inevitable cracks left between what the school budget can support and what the school community desires for their students. Parents can become important partners in the Teacher Advancement Program by assisting with public relations, development efforts, and as members of the site-based management team that determines school goals.

Will the roles of the principal and Master Teacher overlap?

The principal is the head of the school, the individual ultimately responsible for the success of students and for the effectiveness of teaching in the school. In addition to managing the school's operations and scheduling, the principal is responsible for recruiting and hiring teaching staff, conducting evaluations, supervising student assessments, facilitating curriculum development and overseeing strategic planning. Research has demonstrated that a characteristic of effective schools is strong administrative leadership, and that a building-wide, unified effort that promotes higher levels of student learning is dependent on the building principal. The Teacher Advancement Program expands the influence of the principal by empowering educators throughout the building to focus on common goals and objectives.

Master Teachers are first and foremost teachers who bring supervisory assistance that will help the principal execute his or her leadership. Because critical functions such as evaluation, curriculum planning, school-based professional development, strategic planning and decision-making are comprehensive and broad-based, the Master Teachers' and principal's respective roles are complementary.

How will the compensation of the principal and the Master Teachers compare?

The principal is accountable for the vision and success of the students, and is responsible for final determinations on staff hiring, salary enhancement and career advancement. To attract, retain and motivate quality administrators who are also top-flight educators and leaders to this challenging position, the salary of the principal must be competitive.

The salary range for principals is higher than that of the Master Teachers they supervise, with overlap *only* in the case of a senior Master Teacher and a beginning principal. While salary levels will vary from place to place, we envision a salary range for principals to be between $75,000 and $120,000, while Master Teachers will earn between $60,000 and $100,000, including compensation from outside work.

How are principals promoted and evaluated?

Principals would be signed to three-year renewable contracts by the appointing authority, whether a school superintendent or a charter school board. The same authority that conducts the annual principal's evaluation with input from Master Teachers and others should also determine advancement within the salary range.

What is the relationship between a Master Teacher at the high school level and a department chair? Are they the same under this model?

A department chair and Master Teacher may or may not be the same person. Presently, a department chair is typically responsible for administrative tasks, budget and supply requests, a participatory role in evaluation of department members and instructional leadership, and a regular teaching load minus one period to address department chair duties. In the proposed model, a Master Teacher could also be the department chair although, as a Master Teacher, there are certain expanded roles. The Master Teacher is the designated instructional leader and coordinates professional development for the department. The Master Teacher is a primary evaluator along with the principal. The Master Teacher is responsible for overall curriculum development, and also team-teaches with colleagues and provides demonstration lessons.

Professional Development

Will there be adequate training for mid-career professionals and adjunct faculty who have never taught before?

In the last few years, states have begun to create alternative routes into the teaching profession. These alternative routes provide opportunities for qualified people from divergent educational and career backgrounds to become teachers. Forty-one states and the District of Columbia report having some type of alternative teacher certification programs. Many of these programs are high-quality, well-designed programs that provide professional preparation for qualified individuals who already have a baccalaureate degree. More than 80,000 people nationwide are estimated to have obtained a teacher license through these programs.

Experts agree that effective alternative teacher certification programs include the following features:

- A rigorous screening process that provides evidence of content mastery
- Extensive classroom-based clinical training
- Cohort rather than individual training experience
- Involve state departments of education which oversee teacher licensing, school districts and universities

Adjunct faculty will be selected based on their content expertise and rich life experience. TAP's regularly scheduled Professional Growth Blocks, mentoring and emphasis on collaborative learning activities will provide further support for such educators. Adjunct faculty and mid-career professionals (who already show higher retention patterns in teaching) will be well-positioned to succeed in TAP school sites.

Accountability

How does the Teacher Advancement Program evaluate teachers?

The TAP evaluation appraises a teacher's teaching processes, gains in student and school achievement on standardized and standards-based tests, and performance in job-specific responsibilities (Associate Teacher, Senior Teacher, Mentor Teacher, Master Teacher).

Teaching processes are evaluated through observation and a teaching portfolio. Schools set the teaching standards that each level teacher in the career path is responsible for achieving. Those standards are measured against well-defined rubrics.

Student and school achievement are evaluated based on the gains the student produces from the beginning to the end of the year in subject-specific standardized tests. Using a value-added statistical model, student gains are calculated and attributed to the teacher, department and school.

Each level teacher in TAP has different roles and responsibilities. While an Associate Teacher is primarily responsible for classroom learning, a Master Teacher is responsible for classroom learning, curriculum development, staff professional development and mentoring activities. Each teacher's evaluation appraises the responsibilities specific to that level teacher.

How will student growth be measured under TAP?

Elementary level:

In elementary schools, student and school growth in achievement will be measured using standardized tests. The Foundation is currently developing an equitable statistical model to calculate the gains each student makes from one year to the next. The teacher and the school can regard those gains as "value-added."

A second method for calculating student gains is collection of student work from the beginning of the year to the end of the year on a series of teacher-constructed benchmark tests. These tests are designed to evidence achievement on state and school district standards, and are rated based on performance rubrics. Accordingly, gains are measured against performance standards.

Secondary level:

At the high school, measuring student growth and attributing it to the teacher and school is more complicated. Basic skills standardized tests are not sufficient because these assessments lack subject specificity. For instance, a basic skills standardized math assessment is not finite enough to assess the impact of a geometry or calculus teacher on student achievement. Similarly, a standardized science test is not specific enough to assess the impact of a chemistry or biology teacher. Standardized, norm-referenced, subject-specific assessments are needed to measure student growth and attribute it to the teacher and school. Currently, only two states (California and New York) have developed batteries of standardized subject-specific tests for multiple grade levels. These types of standardized tests should be the basis for attributing student achievement gains to teachers under TAP. For states that have not developed subject-specific tests, the SAT II and AP examinations can be used. These assessments evaluate students' subject matter knowledge in several but not all disciplines. Finally, in cases where standardized subject matter tests do not exist, TAP recommends that these tests be developed.

Funding TAP

What is the transition cost for a TAP school?

The Teacher Advancement Program is expected to cost a school an additional six to eight percent more annually. Additionally, except for a charter school or a new school just bringing in staff, there will be several years of transition costs to cover existing salary schedule obligations. For example, two-tier salary schedules will be required to maintain the salaries of teachers not selected as Mentor or Master Teachers, but who choose to remain at the school as Associate Teachers. Specific numbers will need to be calculated for each school and/or district.

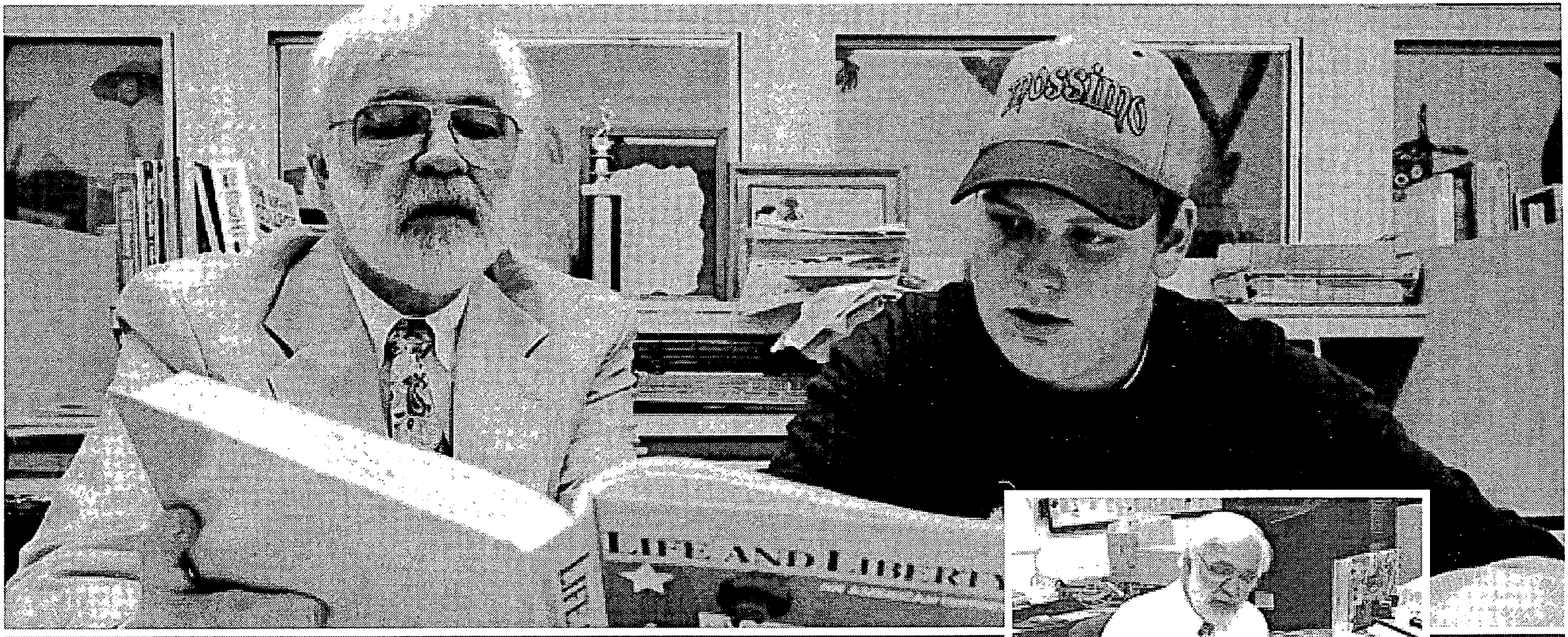
How will the Teacher Advancement Program be funded?

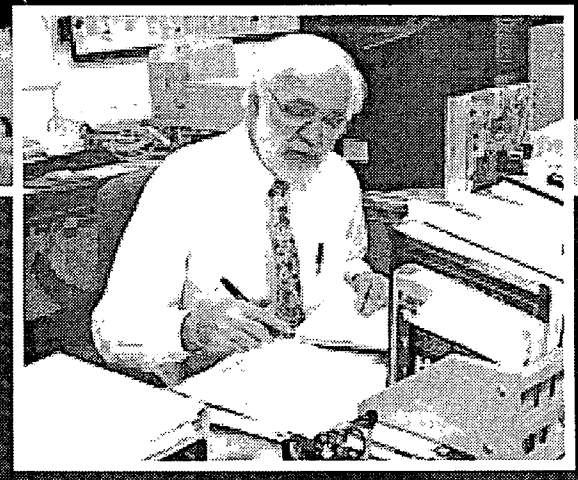
Unless the beneficiaries of a funded program contribute to its costs, experience shows that the program tends to end when the external funding ceases. Therefore, participating states, districts and schools will be expected to find funding in addition to whatever outside sources (foundations, businesses, etc.) can contribute. For example, funds may be reallocated at the district level. When higher-paid senior teachers retire and are replaced by lower-paid new teachers, the "turnover savings" traditionally revert back to the district. If each TAP school's turnover savings could revert to them, such funds could be used for TAP. Funding sources that states could consider might include the reallocation of money from current or new federal programs towards TAP, or a state appropriation either out of existing funds or from a new revenue source.

As teachers gain more experience and are paid more, how much will TAP cost in five years, ten years and beyond?

The next five to ten years provide a unique opportunity for the Teacher Advancement Program. As a large number of senior teachers retire and are replaced by less-expensive newer teachers, the total teacher wage bill should fall. This will free up funds for performance-based compensation. Future TAP costs should be largely covered by current funds and normal increases.

TEACHER ADVANCEMENT PROGRAM:





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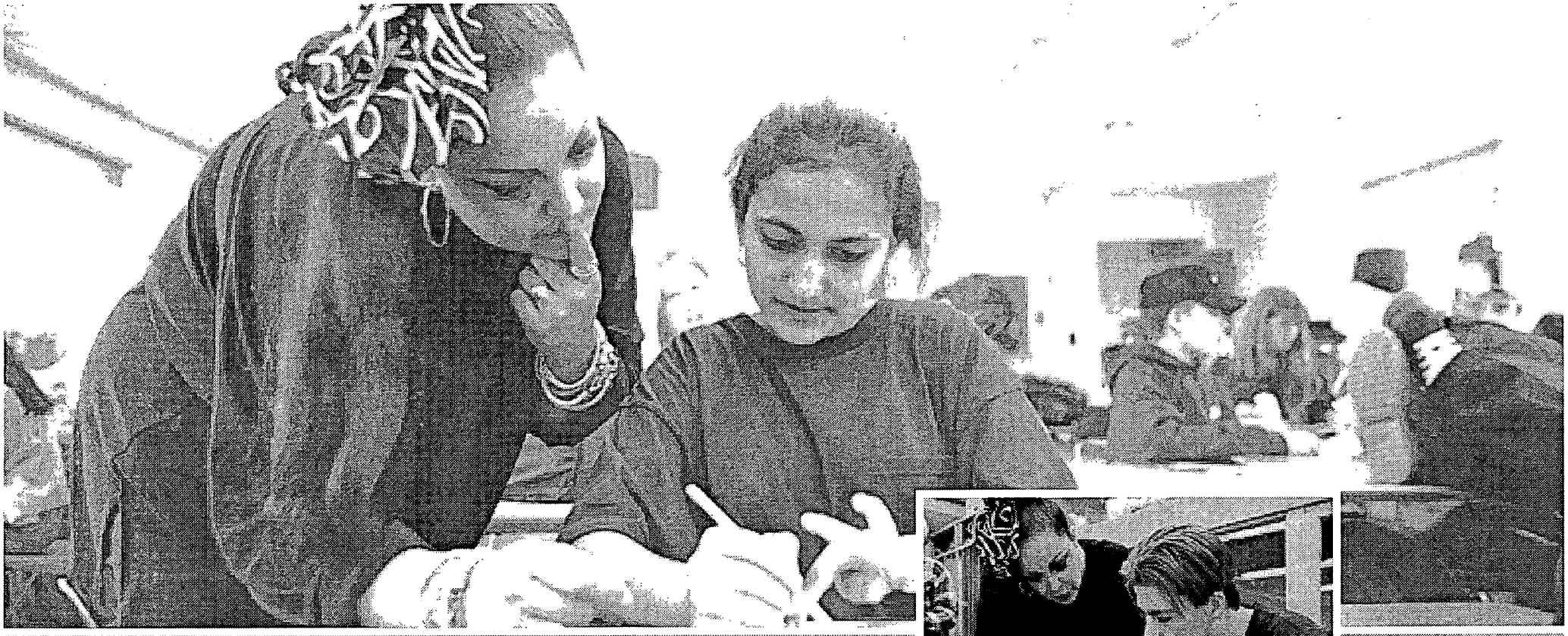
TEACHER ADVANCEMENT PROGRAM:

Five Key Principles



Five Key Principles

TAP is a comprehensive and systemic strategy. It addresses recruitment, training, induction, professional development, compensation, performance evaluation and career advancement—within a conceptual framework that includes five key principles. While each is powerful in its own right, all of them need to be in place to assure effective and lasting reform. These principles are:

1. Multiple Career Paths
2. Market-Driven Compensation
3. Performance-Based Accountability
4. Ongoing, Applied Professional Growth
5. Expanding the Supply of High-Quality Teachers

The Teacher Advancement Program provides teachers with multiple career paths ranging from inductee to Master Teacher. TAP offers all teachers the opportunity to advance in the profession without having to leave the classroom. Teachers are able to move along a continuum where increased responsibilities, qualifications, professional development and performance-based accountability requirements are commensurate with compensation. Multiple career paths provide for expanded roles for talented teachers as leaders, decision-makers and mentors at the school site, and opportunities to work in the broader community.

The second principle is market-driven compensation, which replaces lock-step salary structures and provides flexibility to establish salaries. Pay differentiation is based on demand (more to those in hard-to-staff fields and schools), demonstrated teacher knowledge and skills, actual teacher performance, increased responsibilities and student performance. This system provides increased pay for those who do more work and are judged to be the best.

Performance-based accountability is rigorous, tied to compensation, and includes differentiated requirements based on the teacher's position. Teachers are assessed against high standards that measure their performance in content knowledge, planning, instruction, assessment, and in producing student learning gains. Hiring, advancement and pay increases are based on performance reviews conducted by the principal and peer experts from both within and outside of the school. The ultimate goal is for teachers to sign three-year renewable contracts. However, at a minimum, tenure reviews will be more thorough, and tenure will be awarded after a longer period of time in the classroom. Initial and continuing certification will become primarily performance-based.

The fourth principle is ongoing, applied professional growth, which requires a school-wide commitment and includes all teachers. Outcomes are tied to state teaching and learning standards, school improvement efforts, and a data-driven analysis of student learning outcomes. Activities occur at the school site during frequent Professional Growth Blocks led by the principal and Master Teachers and guided by Mentor Teachers. They are designed to encourage more collaboration among professional staff. A mandated, salaried, mentored induction year gives new teachers classroom responsibility with intensive support. Ongoing, applied professional growth ensures adequate time for teachers to meet, reflect, learn and grow professionally.

The fifth principle of TAP is expanding the supply of high-quality teachers. This is achieved by making the initial academic degree and teaching certification attainable in four years; providing alternative certification to give beginning teachers, as well as mid-career professionals, the ability to enter teaching as adjuncts or full-time through assessments and classroom demonstration; and allowing outstanding retired teachers to continue working on a part-time basis as Faculty Fellows. Expanded teacher job mobility—and, therefore, increased competition and opportunity for teachers—is achieved through multi-state credentialing, private pension plans that make benefits more portable, and the opportunity for all teachers to become nationally certified at the beginning, middle and advanced levels of professional practice.

BENEFITS OF THE TEACHER ADVANCEMENT PROGRAM

Key Principle	Current	Teacher Advancement Program
Multiple Career Paths	1. Teacher or Administrator 2. Uneven use of teachers' talent in determining school plan 3. Quality support during induction year is the exception.	1. Multiple career paths: Associate, Senior, Mentor, Master, Adjunct, Faculty Fellow, Administrator 2. Professional continuum that provides incentives for increased responsibilities, qualifications, learning and performance-based accountability 3. Expanded roles for teachers in on-site leadership, decision-making and mentoring, as well as opportunities for community partnerships
Market-Driven Compensation	1. Limited salary range: $25,000 to $59,000 2. Lock-step, single salary schedules	1. Broad salary range: $30,000 to $100,000 2. Market-oriented salary schedules provide flexibility to reward performance and negotiate salaries
Performance-Based Accountability	1. Re-certification and salary advancement are based on seat time and tests with uneven standards.	1. Hiring, advancement and pay decisions are based on rigorous reviews that assess teacher performance in content knowledge, planning, instruction, assessment and student learning gains. 2. Higher standards for tenure, with the ultimate goal of three-year renewable teacher contracts 3. Certification and re-certification are primarily performance-based.
Ongoing, Applied Professional Growth	1. In-service is fragmented with inconsistent follow-up and implementation, and incompatible with adult learning principles and good teaching practices. 2. Lack of time for collaborative teaching, team planning, and reflection	1. School-wide commitment to site-based professional growth activities that are connected to state teaching and learning standards, and local school improvement goals 2. Professional Growth Blocks led by principal and Master Teachers foster collaboration and focus on expected learning outcomes, best instructional practices and use of data to inform instruction. 3. Mandatory salaried induction year
Expanded Supply of High-Quality Teachers	1. No strategic plan to recruit to the profession 2. Retirement pension systems are state-based and permit no portability. 3. National certification exists only when pursued by individuals. 4. Initial training through a five-year program for degree and certification	1. Initial academic degree and certification attainable in four years 2. Alternative certification routes for beginning teachers and mid-career professionals 3. Multi-state credentialing, portable pension plans and opportunities for national certification increase professional opportunities and job mobility.

DESCRIPTION OF TAP STAFF POSITIONS

	Faculty Fellow	Adjunct Teacher	Associate Teacher	Senior Teacher	Mentor Teacher	Master Teacher
Professional Qualifications and Certification	• Bachelor's and full credential, with Master's or Doctorate preferred • 3 to 5 years experience as a Senior, Mentor or Master Teacher	• Bachelor's with extensive specialized training and experience in a given content area OR • Evidence of teaching expertise. Assessment Criteria: basic skills, subject expertise and classroom demonstrations	• Bachelor's with at least provisional teaching certificate OR • Bachelor's and Assessment Criteria: basic skills, subject expertise and classroom demonstrations	• Bachelor's and full credential, Master's preferred • 3 years teaching experience • Exemplary portfolio and classroom demonstrations • Excellent instruction and communication skills • Proven expertise in teacher professional development • Recommended by the principal, and Mentor and Master Teachers	• Bachelor's and full credentials, Master's preferred • Minimum 3 years teaching experience • Exemplary portfolio and classroom demonstrations • Excellent instruction and communication skills • Proven expertise in teacher professional development • Recommended by the principal, and Mentor and Master Teachers • Performance-based Mentor certification	• Master's required, Doctorate preferred • Outstanding portfolio and classroom demonstrations • 5 years experience at Mentor level • Proven expertise in content, curriculum development, student learning and assessment • Performance-based Masters certification • Proof of contribution to profession such as research, publication, university teaching, presentations
Compensation	Per Course Range $4,792- $7,260	Per Course Range $4,356 - $5,082	$30,000 to $35,000	$33,000 to $50,000	$45,000 to $70,000	$60,000 to $100,000
Career Path	• Retired Senior, Mentor or Master Teacher recalled for special teaching assignments • Hired on an annual basis with a 1 year renewable contract	• Primary occupational position outside of education and in field of expertise • Hired on an annual basis with a 1 year renewable contract • Induction program and examination cost covered by school	• Induction program in first year • 3 year renewable contract after first year • Advancement based on performance appraisal outcomes including portfolio and classroom demonstrations • Advancement within and between ranks determined by principal-designee and Master Teachers with input from Mentors	• Re-qualify every 5 years with performance-based external review • 3 year renewable contract • Advancement within ranks determined by principal-designee and Master Teachers with input from Mentors • Advancement to Mentor status based on performance appraisal outcomes, including portfolio and classroom demonstration and recommendation by principal and Master Teachers	• Re-qualify every 5 years with performance-based external review • 3 year renewable contract • Advancement within rank determined by principal-designee and Master Teacher • Advancement to Master based on performance appraisal and recommendation by principal and Master Teachers • May revert to Senior Teacher upon request	• Top rank • Re-qualify every 5 years with performance-based external review • 3 year renewable contract • May revert to Mentor upon request • Advancement within rank determined by principal-designee

DESCRIPTION OF TAP STAFF POSITIONS (continued)

	Faculty Fellow	Adjunct Teacher	Associate Teacher	Senior Teacher	Mentor Teacher	Master Teacher
Work Period	• Traditional contract days • Hired on a per course basis. May teach up to 3 courses	• Traditional contract days • Hired on a per course basis. May teach up to 3 courses in field of expertise	• First year—Traditional contract days, plus 10 paid professional development days • Second year and beyond—Traditional contract days	• Traditional contract days	• Traditional calendar plus 20 days	• Traditional calendar plus 40 days • Works 90% time
Responsibilities	• Teach classes	• Teach classes	• Teach 4 classes in first year, 5 classes in second year and beyond • Develop expertise individually and under guidance of Mentor and Master Teachers • Develop portfolio	• Teach 5 classes • Develop expertise individually and under guidance of Mentor and Master Teachers • Develop portfolio	• Teach 4 classes • Plan & lead Professional Growth Block (PGB) activities • Focus PGB activities on expected learning outcomes, best instructional practices & use of data to inform instruction • Collaborate with colleagues on program improvement • Conduct demonstration lessons • Conduct classroom observation and peer assistance and coaching for colleagues • Supervise Associate Teachers' professional growth plans • School planning	• Teach 2 academic classes • Conduct peer evaluation with principal • Train Mentors in best practice around expected learning outcomes, best instructional practices, use of data to inform instruction, and in team-building and mentoring skills • Plan, oversee and lead as needed PGB activities • Classroom observation and peer assistance and coaching for colleagues • Conduct demonstration lessons • Supervise Senior and Mentor Teachers' professional growth plans • Curriculum planning and development • School planning and leadership

DESCRIPTION OF TAP STAFF POSITIONS (continued)

	Faculty Fellow	Adjunct Teacher	Associate Teacher	Senior Teacher	Mentor Teacher	Master Teacher
Professional Development Requirements	• Encouraged to participate in Professional Growth Block activities	• Encouraged to participate in Professional Growth Block activities • Directed toward meeting benchmarks based on classroom demonstration comments from Master and Mentor Teachers • Receive peer assistance from Mentor and Master Teachers	• Participate in Professional Growth Block activities • Self- and team-directed and connected to teaching standards, academic standards, school mission and goals • Observation of Mentor and Master Teachers • Annually develop and implement a personal professional growth plan	• Participate in Professional Growth Block activities • Self- and team-directed and connected to teaching standards, academic standards, school mission and goals • Observation of Mentor and Master Teachers • Annually develop and implement a personal professional growth plan	• Self- and team-directed and connected to teaching standards, academic standards, school mission and goals • Observation of other Mentors and Master Teachers within school and beyond • Annually develop and implement a personal professional growth plan	• Self- and team-directed and connected to teaching standards, academic standards, school mission and goals • Share accomplishments • Annually develop and implement a personal professional growth plan
Evaluation	• Conducted by Master Teacher or principal-designee with input from Mentor	• Conducted by Master Teacher or principal-designee with input from Mentor	• Participate in the TAP Performance Appraisal System • Conducted by Master Teacher or principal-designee with input from Mentor	• Participate in the TAP Performance Appraisal System • Conducted by Master Teacher or principal-designee with input from Mentor • Principal is involved in all final review decisions for advancement to Mentor Teacher positions	• Participate in the TAP Performance Appraisal System • Conducted by principal-designee and Master Teachers from within and outside the school • Principal is involved in all final review decisions for advancement to Master Teacher positions	• Participate in the TAP Performance Appraisal System • Conducted by principal-designee and Master Teachers from other TAP schools when available

NEW MILL HIGH SCHOOL CURRENTLY AND UNDER TAP: A Context Comparison

Currently

2,000 Students
Grades 9-12
8 Departments
Traditional Schedule
- 6/60-minute classes 5 X a week

Average class size: 30 students
Student course load: 6 classes
Teacher course load: 5 classes

Professional staff

Full-time
80 classroom teachers

Under TAP

2,000 Students
Grades 9-12
8 Departments
Modified Block Schedule
- 6/60-minute classes 3 X a week
- 3/90-minute classes 2 X a week
- 1/90-minute Professional Growth Block
- 2/45-minute Student Advisment Periods

Average class size: 30 students
Student course load: 6 classes
Teacher course load varies by position
- Master: 2 classes
- Mentor: 4 classes
- Senior & Associate: 5 classes
- Induction-Year Associate Teacher: 4 classes
- Faculty Fellow: 1-3 classes
- Adjunct: 1-3 classes

Professional staff

Full-time
31 Associate Teachers
35 Senior Teachers
14 Mentor Teachers
4 Master Teachers @ 90% time

Part-time
4 Faculty Fellows
3 Adjunct Teachers

Constant in Both Models

Administrative & Support Services
- Principal
- Assistant Principals
- Counselors
- Deans
- Librarians
- Technology and AV support staff
- Secretarial staff
- Psychologist
- Social Workers
- Activities Coordinator

Special Programs

- Special Education teachers, Special Education aides, speech therapist, nurses and Title I teachers
- Student teachers and administrative interns from university education programs
- Volunteers with special skills or knowledge made available through partnerships with local business groups, community organizations and colleges and universities
- Parent and senior citizen volunteers

IMPLEMENTING TAP: Student and Course Distribution by Department and Grade

2000 Student School	Social Science		English		Math		Science		World Language		Physical Education		Applied Arts & Technology		Fine & Performing Arts	
	Students	Classes	Students	Classes	Students	Classes	Students	Classes	Students	Classes	Students	Classes	Students	Classes	Students	Classes
Required Courses for University Admissions		3				3		2		2		2		1		1
Freshman	500	17	500	17	500	17	500	17	500	17	500	17				
Sophomore	500	17	500	17	500	17	500	17	500	17	500	17				
Junior	500	17	500	17	500	17							500	17	500	17
Senior			500	17												
All Electives	400	13	250	8	400	13	425	14	350	12	420	14	350	12	375	13
	1900	64	2250	*75	1900	*63	1425	48	1350	*45	1420	48	850	*28	875	*29

Explanation of Course Distribution Chart

This chart illustrates how the number of classes offered by each department was determined. This is essential for determining the number of faculty members needed to staff a high school. Since high school teachers are typically specialized by subject matter expertise, we must know the number of faculty members needed by department. This process begins with determining the number of courses that must be offered to meet student course-taking patterns. For our model, the following assumptions were used to determine the number of departmental course offerings. These assumptions are subject to modification as needed.

* Model uses rounded numbers; due to rounding conventions, numbers may not add up to totals given. Actual implementation will require adjustments.

Model Assumptions for Course Distribution

1. 2,000 students evenly distributed among the 4 classes or grades
2. 8 departments (7 academic departments plus physical education). All course offerings are done through departments including specialized courses such as work-study programs. In practice, other departmental configurations are possible, but the principles remain the same.
3. All students are required to take a course load that will meet the minimum college entrance requirements for the higher education system in their state. Here the University of California's course requirements plus one technology course has been used as the standard.
4. Required courses are concentrated in the freshman and sophomore years and elective courses in the junior and senior years.
5. Student to course ratio is 30:1
6. All students are required to take six classes per day; this includes physical education.
7. Distribution of classes by department is flexible. Numbers shown here are for illustrative purposes only.

Using these assumptions, it is possible to determine the number of courses to be offered by each department. For example, in the science department, it is estimated that 500 freshmen and 500 sophomores will take required science courses, and 425 students will take elective science courses for a total of 1425 students enrolled in science courses. The average class size is 30. By dividing 30 into 1425, it is determined that the science department must offer 48 courses in the next year. This number is constant in both the current model and the Teacher Advancement Program model. Once the number of courses to be offered is determined, it is possible to determine the number of faculty members needed to staff these courses.

IMPLEMENTING TAP: Distribution of Staff by Department

CURRENT MODEL

TEACHER ADVANCEMENT PROGRAM MODEL

Department	Number of Classes in Both Models	Number of Teachers Needed at 5 Classes Each	Faculty Fellows (Each teaches 1 to 2 classes)		Adjunct Teachers (Each teaches 1 to 2 classes)		Associate Teachers (Induction-Year Associate Teachers teach 4 classes, all others teach 5 classes each)				Senior Teachers (Each teaches 5 classes)		Mentor Teachers (Each teaches 4 classes)		Master Teachers (Each teaches 2 classes)	
			Teachers	Total Classes	Teachers	Total Classes	Teachers Induction Year	Total Classes	Teachers	Total Classes	Teachers	Total Classes	Teachers	Total Classes	Teachers	Total Classes
Science	48	10	1	2	2	2	1	4	2	10	4	20	2	8	1	2
Social Science	64	13					1	4	4	20	6	30	2	8	1	2
English	75	15							6	30	7	35	2	8	1	2
Math	63	13	2	2	1	1			4	20	6	30	2	8	1	2
World Language	45	9	1	2					3	15	4	20	2	8		
Physical Education	48	10					1	4	4	20	4	20	1	4		
Applied Arts and Technology	28	6					1	4	2	10	2	10	1	4		
Fine and Performing Arts	29	6			1	1			2	10	2	10	2	8		
Total	400	*80	4	6	4	4	4	16	27	135	35	175	14	56	4	8

Explanation of Current Staffing Model Chart

In the current model, the number of teachers needed to staff a department is determined by dividing the number of courses to be offered (this number is constant in both models) by the average faculty member's teaching load. Using the science department as an example, the number of science faculty members can be determined by dividing the 48 courses needed to meet student requirements by 5, the average teaching load. Consequently, in the current model 10 science teachers are needed.

In the Teacher Advancement Program, calculating the number of faculty members needed to staff the departments is more complex. It will change from site to site based on variables such as student demand for courses and availability of qualified Faculty Fellows and Adjunct Teachers. Set forth is one scenario for staffing all departments at New Mill High School. The following assumptions have been used to distribute teachers within and between departments.

1. Department must staff at a 30:1 maximum ratio
2. Faculty Fellows and Adjunct Teachers teach 1 to 3 classes each
3. Each department must have a minimum of 1 Mentor Teacher
4. Master Teachers will supervise 2 departments

In the science department example, 13 teachers staff the 48 classes planned for next year:

- 1 Faculty Fellow teaches 2 classes
- 2 Adjuncts teach a total of 2 classes
- 1 Induction-Year Associate Teacher teaches 4 classes
- 3 Associate Teachers teach a total of 15 classes
- 3 Senior Teachers teach a total of 15 classes
- 2 Mentor Teachers teach a total of 8 classes
- 1 Master Teacher teaches 2 classes

In actual school settings the teacher distribution will vary based on local conditions.

* Model uses rounded numbers; due to rounding conventions, numbers may not add up to totals given. Actual implementation will require adjustments.

NEW MILL HIGH SCHOOL IN 2000 and 2005: Salary Budget Comparison

Current Model	Number of Teachers	Average Teacher's Salary[1] 1999-2000	Total Salary Cost
Teachers	80	$43,550	$3,484,000

	Percent of Classes Taught by Faculty	Number of Classes Taught by Position	Number of Full-Time Positions	Salary Range Low	Average Salaries at Position	Salary Range High	Salary Cost
Associate Teachers	37.7%	151	31	$30,000	$32,500	$35,000	$1,007,500
Senior Teachers	43.7%	175	35	$33,000	$41,500	$50,000	$1,452,500
Mentor Teachers	14%	56	14	$45,000	$57,500	$70,000	$805,000
Master Teachers	2%	8	4	$60,000	$80,000	$100,000	$320,000
Total Full-Time			84				

			Number of Part-Time Positions	Per Course Range Low	Per Course Average Cost	Per Course Range High	
Adjunct Teachers[2]	1%	4	4	$4,356	$4,719	$5,082	$18,876
Faculty Fellows[3]	2%	6	4	$4,792	$6,026	$7,260	$36,156
Total Part-Time			8			**TAP Salary Budget Total**	**$3,640,032**
Total[4]	**100%**	400	92			**Current Salary Budget**	**$3,484,000**
						Percent Difference	**4%**

[1] Salaries are based on national averages. (*Salaries Paid to Professionals in Schools, 1999-2000*, Part 2. Arlington, VA: Education Research Services, 2000). 2005 figures computed on historical inflation increases.
[2] There are 4 Adjunct Teachers working part-time teaching a total of 4 classes.
[3] There are 4 Faculty Fellows working part-time teaching a total of 6 classes.
[4] In this example, the Teacher Advancement Program calls for 92 teacher positions, rather than the 80 teachers in the current model needed to staff the 2,000-student high school. The variations in staffing levels and salaries and the use of part-time positions allow for the increased number of faculty and range of salaries.
* All figures are rounded.

IMPLEMENTING TAP: Science Department Master Class Schedule

48 Sections	Period 1 8 Classes offered in grades 9-12				Period 2 7 Classes offered in grades 9-12				Period 3 9 Classes offered in grades 9-12				Period 4 9 Classes offered in grades 9-12				Period 5 8 Classes offered in grades 9-12				Period 6 7 Classes offered in grades 9-12			
	9	10	11	12	9	10	11	12	9	10	11	12	9	10	11	12	9	10	11	12	9	10	11	12
Faculty Fellow			X				X																	
Adjunct 1				X																				
Adjunct 2							X																	
Induction-Year Associate Teacher	X												X				X				X			
Associate Teacher 1								X				X				X				X				X
Associate Teacher 2						X				X				X				X				X		
Senior Teacher 1					X				X				X				X				X			
Senior Teacher 2	X								X				X				X				X			
Senior Teacher 3		X				X				X				X								X		
Senior Teacher 4		X								X				X				X				X		
Mentor Teacher 1					X				X					X			X							
Mentor Teacher 2		X									X				X				X					
Master Teacher				X							X													
Total by Grade	2	3	1	2	2	2	2	1	3	3	2	1	3	4	1	1	4	2	1	1	3	3	0	1

NEW MILL HIGH SCHOOL IN 2000 and 2005: Science Department Salary Budget Comparison

Current Model	Number of Teachers	Salary Range 2000-2001	Total Salary Cost (in 2000 dollars)
Teachers	10	$26,961 - $61,158	$435,212
Teacher Advancement Program	**Number of Full-Time Positions at Each Level**	**Salary Range**	**Salary Cost[1] (in 2000 dollars)**
Associate Teachers	3	$30,000 - $35,000	$100,000
Senior Teachers	4	$33,000 - $50,000	$145,500
Mentor Teachers	2	$45,000 - $70,000	$104,000
Master Teacher	1	$60,000 - $100,000	$82,000
	Number of Part-Time Positions at Each Level	**Per Course Salary Range**	
Adjunct Teacher[2]	2	$4,356 - $5,082	$8,712
Faculty Fellow[3]	1	$4,792 - $7,260	$14,520
Total		**TAP Salary Budget Total**	$454,732
		Percent Difference Between Current Budget and TAP Budget	4%

[1] Please refer to New Mill High School Salary History: Pre-TAP and TAP on page 68 for individual teacher salaries.
[2] Adjuncts teach two classes.
[3] Faculty Fellow teaches two classes.
* All figures are rounded to the nearest whole number.

NEW MILL UNIFIED SCHOOL DISTRICT SALARY SCHEDULE 2000-2001

	Units Beyond Bachelor's Degree						
Year Teaching	0-39	40-49	50-59	60-69	70-79	75-79	80+
0	25,961.05	26,881.14	27,801.22	28,721.31	29,641.40	30,101.44	30,561.48
1	27,344.21	28,264.30	29,184.39	30,104.47	31,024.56	31,484.60	31,944.65
2	28,727.37	29,647.46	30,567.55	31,487.63	32,407.72	32,867.76	33,327.81
3	30,110.53	31,030.62	31,950.71	32,870.79	33,790.88	34,250.92	34,710.97
4	31,493.70	32,413.78	33,333.87	34,253.95	35,174.04	35,634.08	36,094.13
5	32,876.86	33,796.94	34,717.03	35,637.12	36,557.20	37,017.25	37,477.29
6	34,260.02	35,180.10	36,100.19	37,020.28	37,940.36	38,400.41	38,860.45
7	35,643.18	36,563.26	37,483.35	38,403.44	39,323.52	39,783.57	40,243.61
8		37,946.42	38,866.51	39,786.60	40,706.68	41,166.73	41,626.77
9			40,249.67	41,169.76	42,089.85	42,549.89	43,009.93
10				42,552.92	43,473.01	43,933.05	44,393.09
11					44,856.17	45,316.21	45,776.25
12						46,699.37	47,159.41
13							48,542.57

Base (w/Credential)	$ 25,961.05
Education Units	$ 92.01
Master's Increment	$ 1,303.38
Step Increment	$ 1,383.16
Anniversary	$ 1,885.39
Supermax Salary	$ 61,158.29

Note: Upon receipt of master's degree, teacher receives a salary increment regardless of the number of units for M.A.

Note: Anniversary increments available after 15th, 18th, 24th, 27th, 30th and 33rd years of credited service in the district

Note: Supermax Salary = 33 years (includes 6 anniversary increments) with M.A. and 80 units

NEW MILL HIGH SCHOOL SALARY HISTORY: Pre-TAP and TAP

Year 2000					Year 2005				
Person/Position	Years Teaching	Degree & Units Beyond B.A.	Salary	Staff Follow-up in 2005	Years Teaching	Title	Salary (2000 dollars)	Salary[1] (2005 dollars)	Salary Range
Michelle Kim - Biology Teacher	3	M.A./75	$34,183	Michelle Kim - Promoted to Mentor	8	Mentor Teacher 1	$52,000	$60,282	$45,000 - $70,000
Russell Sherman - First Year Physical Science	0	B.A.	$25,961	LEFT TEACHING					
Nick Hanson - Physics Teacher	15	M.A./80	$51,731	Nick Hanson - Promoted to Master	20	Master Teacher	$82,000	$95,060	$60,000 - $100,000
Joe Barrett - Chemistry Teacher	6	M.A./80 Dept. Chair	$42,164	TRANSFERRED					
Ginny Dalton - Biology Teacher	30	M.A./80	$59,273	Ginny Dalton - Retired and recalled as Faculty Fellow	31	Faculty Fellow	$14,520	$16,833	$4,792 - $7,260
Teacher A	1	B.A./50	$29,184	Teacher A promoted to Senior Teacher 2003	6	Senior Teacher 1	$36,000	$41,734	$33,000 - $50,000
Teacher B	4	M.A./60	$35,557	Teacher B promoted to Senior Teacher 2002	9	Senior Teacher 2	$40,000	$46,371	$33,000 - $50,000
Teacher C	18	M.A./60	$45,742	TRANSFERRED					
Teacher D	33	B.A./50	$51,562	RETIRED					
Teacher E	36	B.A./80	$59,855	RETIRED					
		NEW HIRES (POST 2000)		Replaced Russell Sherman. Hired 2001, promoted to Mentor Teacher 2003	8	Mentor Teacher 2	$52,000	$60,282	$45,000 - $70,000
				Replaced Teacher C. Hired 2001, promoted to Senior Teacher in 2003	4	Senior Teacher 3	$35,000	$40,575	$33,000 - $50,000
				Replaced Ginny Dalton. Hired 2001, promoted to Senior Teacher 2004	5	Senior Teacher 4	$34,500	$39,995	$33,000 - $50,000
				Replaced Teacher D. Hired 2004	2	Associate Teacher 1	$32,000	$37,097	$30,000 - $35,000
				Replaced Teacher E. Hired 2003	3	Associate Teacher 2	$33,000	$38,256	$30,000 - $50,000
				Replaced Joe Barrett. Sharon Mendez - Hired 2005	0	Associate Teacher 2 Induction Year	$35,000	$40,575	$30,000 - $35,000
				Marvin Lurman - New Hires 2005 Adjunct 2		Adjunct Teachers	$8,712	$10,100	$4,356 - $5,082
Total Science Department Budget:			**$ 435,212**				**$454,732**	**$527,159**	

[1] 2005 salary was computed using the historic inflation rate of 3 percent per year.

IMPLEMENTING TAP: Description of Science Teachers' Schedules

General Schedule

New Mill High School operates on a traditional 180-student day calendar using a modified block schedule. All classes meet four times a week. On Monday, Tuesday and Friday, there are six 60-minute teaching blocks. On both Wednesday and Thursday, there are three 90-minute teaching blocks, and two 45-minute formal teacher and student advisement blocks. Four days per week, classes begin at 7:30 a.m. and run through 2:40 p.m. Wednesdays are late arrival days for students, while teachers attend a 90-minute Professional Growth Block beginning at 7:00 a.m.

SCIENCE DEPARTMENT

Master Teacher's Schedule

- Teaches two classes per week meeting on Monday, Tuesday, Wednesday and Friday. Does not have teaching responsibilities on Thursdays.
- Has two personal planning blocks of 60-minutes each on Monday and Friday.
- Meets with students during the two 45-minute student advisement blocks held on Wednesday and Thursday.
- Each week on Wednesday the Master Teacher attends and sometimes leads the 90-minute Professional Growth Block he/she has planned in cooperation with the two Science Mentors.
- Once a week, the Master Teacher meets individually with the Mentor Teachers during periods 2 and 6, and with both Mentors during sixth period. This time is set aside each week for Mentor and Master Teachers to participate in training and curricular and professional development planning. Once a month, the principal meets with this group.
- The remainder of the Master Teacher's school time is used for curricular and professional development planning, teacher observation and review, and school leadership and improvement projects.
- Master Teachers work 90-percent time on a 240-day work calendar. This schedule allows for intensive summer work on curriculum, assessment and professional development planning. In addition, all Master Teachers are allowed to bank 24 days to be used for consulting. While this time must be scheduled in advance, it is flexible and can be utilized when the Master Teacher does not have classes to teach.

Mentor Teacher's Schedule

- Teaches four classes per week, meeting daily.
- Has three personal planning blocks: two 60-minute blocks on Monday and Tuesday and one 90-minute block on Wednesday.
- Meets with students during the two 45-minute student advisement blocks held on Wednesday and Thursday.
- Each week on Wednesday, Mentor Teachers lead the 90-minute Professional Growth Block they have planned in cooperation with the Science Master Teacher.
- During period six, Mentor Teachers meet individually with the Science Master Teacher once a week and together with the Master Teacher once a week. This time is set aside for Mentor and Master Teachers to participate in training and curricular and professional development planning. Once a month, the principal meets with the Science Mentor and Master Teachers.
- Each week Mentor Teachers have four 60-minute blocks and one 90-minute block for Mentor activity. This includes reviewing and observing lessons and providing model demonstrations, assisting teachers as they develop their portfolios, and working to meet the TAP performance-based evaluation requirements. Weekly time is set aside for working with induction-year teachers.
- All Mentor Teachers are paid full-time for a 204-day work calendar. This schedule allows Mentors to work on curriculum, assessment and professional development planning with the Master Teacher in the Science Department during the summer.

Senior and Associate Teachers

- Teach five classes per week meeting daily. The Science Master Teacher or Mentor Teachers may observe any of these classes.
- Have four personal planning blocks: three 60-minute blocks on Monday, Tuesday and Friday, and one 90-minute block on Wednesday or Thursday. During these time blocks, Senior and Associate Teachers may schedule a meeting with one of the Science Mentors to review a class observation or to work on his/her portfolio or the requirements of the TAP teacher performance appraisal system.
- Meet with students during the two 45-minute student advisement blocks held on Wednesday and Thursday.
- Participate each Wednesday with the entire department in a 90-minute Professional Growth Block.
- Paid for a traditional 184-day school calendar, four days of which are pupil-free and used for professional growth.

Induction-Year Associate Teacher

- Teaches four classes per week, meeting daily. The Science Master Teacher or Mentor Teachers may observe any of these classes.
- Has four personal planning blocks: three 60-minute blocks on Monday, Tuesday and Friday and one 90-minute block on Wednesday.
- Has four Mentor work blocks: three 60-minute blocks on Monday, Tuesday and Friday, and one 90-minute block on Thursday. During these time blocks, induction-year teachers meet with one of the Science Mentors or the Master Teacher for intensive professional development—reviewing class observations or working on his or her portfolio or the requirements of the TAP teacher performance appraisal system.
- Each Wednesday, the induction-year Associate Teacher participates with the entire department in a 90-minute Professional Growth Block.
- Meets with students during the two 45-minute student advisement blocks held on Wednesday and Thursday.
- Paid for a 194-day school year, 14 of which are pupil-free and used for professional growth.

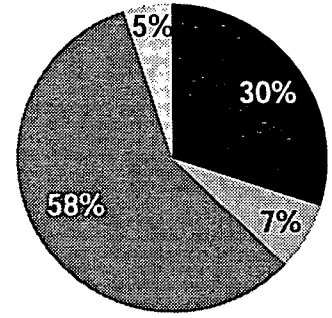
Faculty Fellow and Adjunct Teacher

- Teach one to three classes per week. The Science Master Teacher or Mentor Teachers may observe any of these classes.
- Encouraged to participate in weekly 90-minute Professional Growth Blocks.
- Paid for a traditional 184-day school calendar, four of which are pupil-free and used for professional growth.

Master Teacher

	Monday	Tuesday	Wednesday	Thursday	Friday
7:00			7:00 to 8:30 Professional Growth Block (pupil-free)		
7:30	7:30 to 8:30 Period 1 Teaching	7:30 to 8:30 Period 1 Teaching		7:30 to 9:00 Period 2 Master Teacher Activity	7:30 to 8:30 Period 1 Teaching
8:00					
8:30	8:35 to 9:35 Period 2 Master Teacher Activity	8:35 to 9:35 Period 2 Master Teacher Activity	8:35 to 10:05 Period 1 Teaching		8:35 to 9:35 Period 2 Class Planning and Preparation
9:00				9:05 to 9:50 Student Advisement	
9:30	9:40 to 10:40 Period 3 Teaching	9:40 to 10:40 Period 3 Teaching			9:40 to 10:40 Period 3 Teaching
10:00				Snack	
10:30	Snack	Snack	10:10 to 10:55 Student Advisement	10:05 to 11:15 Period 4 Master Teacher Activity	Snack
11:00	10:55 to 11:55 Period 4 Class Planning and Preparation	10:55 to 11:55 Period 4 Master Teacher Activity	Snack		10:55 to 11:55 Period 4 Master Teacher Activity
11:30				Lunch	
12:00	Lunch	Lunch	11:15 to 12:45 Period 3 Teaching		Lunch
12:30	12:35 to 1:35 Period 5 Master Teacher Activity	12:35 to 1:35 Period 5 Master Teacher Activity	Lunch	12:20 to 1:55 Period 6 Master Teacher Activity	12:35 to 1:35 Period 5 Master Teacher Activity
1:00					
1:30	1:40 to 2:40 Period 6 Master Teacher Activity	1:40 to 2:40 Period 6 Master Teacher Activity	1:25 to 3:00 Period 5 Master Teacher Activity		1:40 to 2:40 Period 6 Master Teacher Activity
2:00					
2:30					
3:00					

WEEKLY IN-SCHOOL TIME ALLOCATION



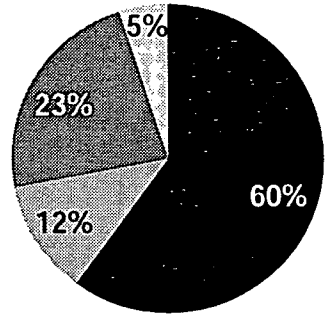
LEGEND

- Teaching
- Class Planning and Preparation
- PGB & Master, Mentor Activity
- Student Advisement

Mentor Teacher

	Monday	Tuesday	Wednesday	Thursday	Friday
7:00			7:00 to 8:30 Professional Growth Block (pupil-free)		
7:30	7:30 to 8:30 Period 1 Mentor Activity	7:30 to 8:30 Period 1 Mentor Activity		7:30 to 9:00 Period 2 Teaching	7:30 to 8:30 Period 1 Mentor Activity
8:00					
8:30	8:35 to 9:35 Period 2 Teaching	8:35 to 9:35 Period 2 Teaching	8:35 to 10:05 Period 1 Class Planning and Preparation		8:35 to 9:35 Period 2 Teaching
9:00				9:05 to 9:50 Student Advisement	
9:30	9:40 to 10:40 Period 3 Teaching	9:40 to 10:40 Period 3 Teaching			9:40 to 10:40 Period 3 Teaching
10:00				Snack	
10:30	Snack	Snack	10:10 to 10:55 Student Advisement	10:10 to 11:40 Period 4 Teaching	Snack
11:00	10:55 to 11:55 Period 4 Teaching	10:55 to 11:55 Period 4 Teaching	Snack		10:55 to 11:55 Period 4 Teaching
11:30					
12:00	Lunch	Lunch	11:15 to 12:45 Period 3 Teaching	Lunch	Lunch
12:30	12:35 to 1:35 Period 5 Teaching	12:35 to 1:35 Period 5 Teaching		12:20 to 1:55 Period 6 Mentor Activity	12:35 to 1:35 Period 5 Teaching
1:00			Lunch		
1:30	1:40 to 2:40 Period 6 Class Planning and Preparation	1:40 to 2:40 Period 6 Class Planning and Preparation	1:25 to 3:00 Period 5 Teaching		1:40 to 2:40 Period 6 Mentor Activity
2:00					
2:30					
3:00					

WEEKLY IN-SCHOOL TIME ALLOCATION



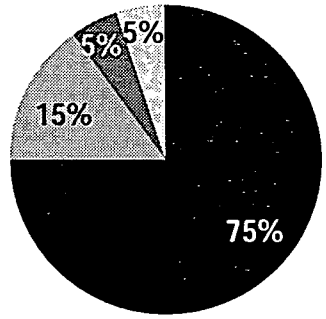
LEGEND

- Teaching
- Class Planning and Preparation
- PGB & Master, Mentor Activity
- Student Advisement

Senior Teacher

	Monday	Tuesday	Wednesday	Thursday	Friday
7:00			7:00 to 8:30 Professional Growth Block (pupil-free)		
7:30	7:30 to 8:30 Period 1 Teaching	7:30 to 8:30 Period 1 Teaching		7:30 to 9:00 Period 2 Class Planning and Preparation	7:30 to 8:30 Period 1 Teaching
8:00					
8:30	8:35 to 9:35 Period 2 Class Planning and Preparation	8:35 to 9:35 Period 2 Class Planning and Preparation	8:35 to 10:05 Period 1 Teaching		8:35 to 9:35 Period 2 Class Planning and Preparation
9:00				9:05 to 9:50 Student Advisement	
9:30	9:40 to 10:40 Period 3 Teaching	9:40 to 10:40 Period 3 Teaching		Snack	9:40 to 10:40 Period 3 Teaching
10:00			10:10 to 10:55 Student Advisement	10:10 to 11:40 Period 4 Teaching	
10:30	Snack	Snack	Snack		Snack
11:00	10:55 to 11:55 Period 4 Teaching	10:55 to 11:55 Period 4 Teaching			10:55 to 11:55 Period 4 Teaching
11:30			11:15 to 12:45 Period 3 Teaching	Lunch	
12:00	Lunch	Lunch	Lunch		Lunch
12:30	12:35 to 1:35 Period 5 Teaching	12:35 to 1:35 Period 5 Teaching		12:20 to 1:55 Period 6 Teaching	12:35 to 1:35 Period 5 Teaching
1:00					
1:30	1:40 to 2:40 Period 6 Teaching	1:40 to 2:40 Period 6 Teaching	1:25 to 3:00 Period 5 Teaching		1:40 to 2:40 Period 6 Teaching
2:00					
2:30					
3:00					

WEEKLY IN-SCHOOL TIME ALLOCATION



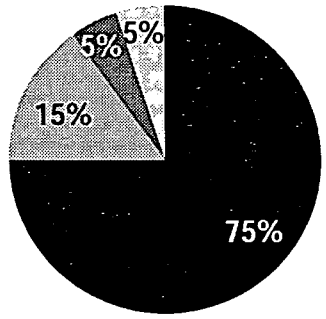
LEGEND

- Teaching
- Class Planning and Preparation
- PGB & Master, Mentor Activity
- Student Advisement

Associate Teacher

	Monday	Tuesday	Wednesday	Thursday	Friday
7:00			7:00 to 8:30 Professional Growth Block (pupil-free)		
7:30	7:30 to 8:30 Period 1 Class Planning and Preparation	7:30 to 8:30 Period 1 Class Planning and Preparation		7:30 to 9:00 Period 2 Teaching	7:30 to 8:30 Period 1 Teaching
8:00					
8:30	8:35 to 9:35 Period 2 Teaching	8:35 to 9:35 Period 2 Teaching	8:35 to 10:05 Period 1 Class Planning and Preparation		8:35 to 9:35 Period 2 Teaching
9:00				9:05 to 9:50 Student Advisement	
9:30	9:40 to 10:40 Period 3 Teaching	9:40 to 10:40 Period 3 Teaching			9:40 to 10:40 Period 3 Teaching
10:00			10:10 to 10:55 Student Advisement	Snack	
10:30	Snack	Snack		10:10 to 11:40 Period 4 Teaching	Snack
11:00	10:55 to 11:55 Period 4 Teaching	10:55 to 11:55 Period 4 Teaching	Snack		10:55 to 11:55 Period 4 Teaching
11:30				Lunch	
12:00	Lunch	Lunch	11:15 to 12:45 Period 3 Teaching		Lunch
12:30				Period 6 Teaching	
1:00	12:35 to 1:35 Period 5 Teaching	12:35 to 1:35 Period 5 Teaching	Lunch		12:35 to 1:35 Period 5 Teaching
1:30					
2:00	1:40 to 2:40 Period 6 Teaching	1:40 to 2:40 Period 6 Teaching	1:25 to 3:00 Period 5 Teaching		1:40 to 2:40 Period 6 Teaching
2:30					
3:00					

WEEKLY IN-SCHOOL TIME ALLOCATION



LEGEND

- Teaching
- Class Planning and Preparation
- PGB & Master, Mentor Activity
- Student Advisement

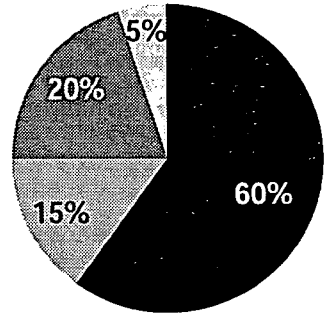
101

102

Induction-Year Associate Teacher

	Monday	Tuesday	Wednesday	Thursday	Friday
7:00			7:00 to 8:30 Professional Growth Block (pupil-free)		
7:30	7:30 to 8:30 Period 1 Teaching	7:30 to 8:30 Period 1 Teaching		7:30 to 9:00 Period 2 Mentoring	7:30 to 8:30 Period 1 Teaching
8:00					
8:30	8:35 to 9:35 Period 2 Mentoring	8:35 to 9:35 Period 2 Mentoring	8:35 to 10:05 Period 1 Teaching		8:35 to 9:35 Period 2 Mentoring
9:00				9:05 to 9:50 Student Advisement	
9:30	9:40 to 10:40 Period 3 Class Planning and Preparation	9:40 to 10:40 Period 3 Class Planning and Preparation		Snack	9:40 to 10:40 Period 3 Class Planning and Preparation
10:00			10:10 to 10:55 Student Advisement	10:10 to 11:40 Period 4 Teaching	
10:30	Snack	Snack			Snack
11:00	10:55 to 11:55 Period 4 Teaching	10:55 to 11:55 Period 4 Teaching	Snack		10:55 to 11:55 Period 4 Teaching
11:30				Lunch	
12:00	Lunch	Lunch	11:15 to 12:45 Period 3 Class Planning and Preparation		Lunch
12:30				12:20 to 1:55 Period 6 Teaching	
1:00	12:35 to 1:35 Period 5 Teaching	12:35 to 1:35 Period 5 Teaching	Lunch		12:35 to 1:35 Period 5 Teaching
1:30					
2:00	1:40 to 2:40 Period 6 Teaching	1:40 to 2:40 Period 6 Teaching	1:25 to 3:00 Period 5 Teaching		1:40 to 2:40 Period 6 Teaching
2:30					
3:00					

WEEKLY IN-SCHOOL TIME ALLOCATION



LEGEND

- Teaching
- Class Planning and Preparation
- PGB & Master, Mentor Activity
- Student Advisement

Faculty Fellow

	Monday	Tuesday	Wednesday	Thursday	Friday
7:00			7:00 to 8:30 Professional Growth Block (pupil-free)		
7:30	7:30 to 8:30 Period 1 Teaching	7:30 to 8:30 Period 1 Teaching		7:30 to 9:00 Period 2 Teaching	7:30 to 8:30 Period 1 Teaching
8:00					
8:30	8:35 to 9:35 Period 2 Teaching	8:35 to 9:35 Period 2 Teaching	8:35 to 10:05 Period 1 Teaching		8:35 to 9:35 Period 2 Teaching
9:00					
9:30					
10:00					
10:30					
11:00					
11:30					
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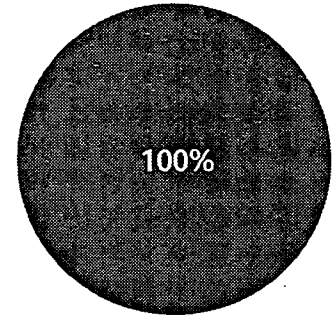
12:30					
1:00					
1:30					
2:00					
2:30					
3:00					

WEEKLY IN-SCHOOL TIME ALLOCATION



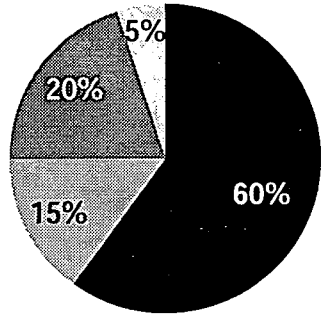
LEGEND

- Teaching
- PGB Optional

Induction-Year Associate Teacher

	Monday	Tuesday	Wednesday	Thursday	Friday
7:00					
7:30	7:30 to 8:30 Period 1 Teaching	7:30 to 8:30 Period 1 Teaching	7:00 to 8:30 Professional Growth Block (pupil-free)	7:30 to 9:00 Period 2 Mentoring	7:30 to 8:30 Period 1 Teaching
8:00					
8:30	8:35 to 9:35 Period 2 Mentoring	8:35 to 9:35 Period 2 Mentoring	8:35 to 10:05 Period 1 Teaching	9:05 to 9:50 Student Advisement	8:35 to 9:35 Period 2 Mentoring
9:00					
9:30	9:40 to 10:40 Period 3 Class Planning and Preparation	9:40 to 10:40 Period 3 Class Planning and Preparation	10:10 to 10:55 Student Advisement	Snack	9:40 to 10:40 Period 3 Class Planning and Preparation
10:00					
10:30	Snack	Snack	Snack	10:10 to 11:40 Period 4 Teaching	Snack
11:00					
11:30	10:55 to 11:55 Period 4 Teaching	10:55 to 11:55 Period 4 Teaching	11:15 to 12:45 Period 3 Class Planning and Preparation	Lunch	10:55 to 11:55 Period 4 Teaching
12:00					
12:30	Lunch	Lunch	Lunch	12:20 to 1:55 Period 6 Teaching	Lunch
1:00	12:35 to 1:35 Period 5 Teaching	12:35 to 1:35 Period 5 Teaching	1:25 to 3:00 Period 5 Teaching		12:35 to 1:35 Period 5 Teaching
1:30					
2:00	1:40 to 2:40 Period 6 Teaching	1:40 to 2:40 Period 6 Teaching			1:40 to 2:40 Period 6 Teaching
2:30					
3:00					

WEEKLY IN-SCHOOL TIME ALLOCATION



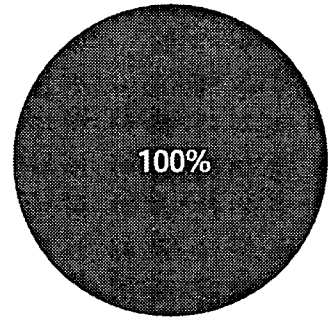
LEGEND

- Teaching
- Class Planning and Preparation
- PGB & Master, Mentor Activity
- Student Advisement

Faculty Fellow

	Monday	Tuesday	Wednesday	Thursday	Friday
7:00			7:00 to 8:30 Professional Growth Block (pupil-free)		
7:30	7:30 to 8:30 Period 1 Teaching	7:30 to 8:30 Period 1 Teaching		7:30 to 9:00 Period 2 Teaching	7:30 to 8:30 Period 1 Teaching
8:00					
8:30	8:35 to 9:35 Period 2 Teaching	8:35 to 9:35 Period 2 Teaching	8:35 to 10:05 Period 1 Teaching		8:35 to 9:35 Period 2 Teaching
9:00					
9:30					
10:00					
10:30					
11:00					
11:30					
12:00					
12:30					
1:00					
1:30					
2:00					
2:30					
3:00					

WEEKLY IN-SCHOOL TIME ALLOCATION



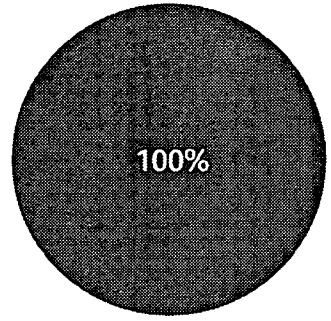
LEGEND

- Teaching
- PGB Optional

Adjunct Teacher

	Monday	Tuesday	Wednesday	Thursday	Friday
7:00			7:00 to 8:30 Professional Growth Block (pupil-free)		
7:30	7:30 to 8:30 Period 1 Teaching	7:30 to 8:30 Period 1 Teaching			7:30 to 8:30 Period 1 Teaching
8:00					
8:30			8:35 to 10:05 Period 1 Teaching		
9:00					
9:30					
10:00					
10:30					
11:00					
11:30					
12:00					
12:30					
1:00					
1:30					
2:00					
2:30					
3:00					

WEEKLY IN-SCHOOL TIME ALLOCATION



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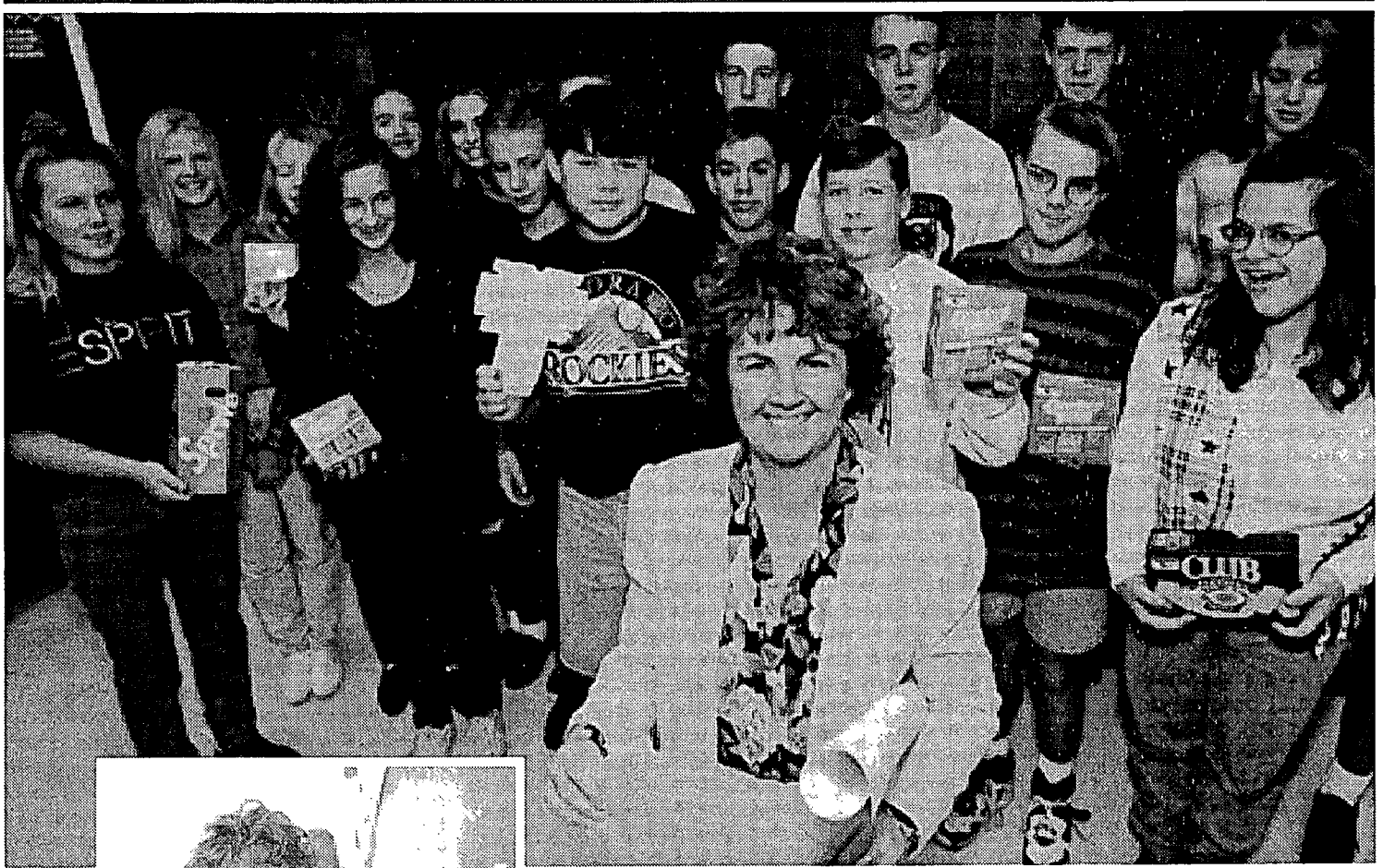
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